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Concerning Municipal Ownership

THERE seems to have been throughout the United States for several months past an increasing tendency on the part of a large number of the daily papers and certain periodicals to present in a very prejudiced way arguments, apparently backed up by facts, in opposition to municipal ownership of public utilities. It is the aim of the MUNICIPAL JOURNAL to present to its readers with absolute impartiality all the facts concerning municipal questions, and the editor himself has no prejudices one way or the other concerning this one. But when, with a remarkable unanimity, a large proportion of the press of the country goes to considerable length to decry municipal ownership, we think it our duty to make a plea

for a more impartial presentation of the facts to the people at large, who must in the end decide for or against public ownership in their particular municipalities. Concerning who or what is behind this elaborate scheme of disparagement, we do not venture to assert, but at least two monthly periodicals are maintained for no other purpose whatsoever, and with practically no financial support from advertising (which support must therefore be supplied from some other source), and the papers throughout the country are being generously supplied gratis with any kind of anti-municipal-ownership matter, from news items to editorials.

An illustration of how one-sided a representation of conditions even the news items may be made to furnish is given by a comparison between the attentions recently accorded to lighting difficulties experienced by two cities, Easton, Pa., and Morristown, N. J. A few weeks ago the electric-lighting plant in the former city broke down, which compelled a portion of the territory served to remain without lights for several weeks. This was a municipal plant, and upon this incident as a basis papers throughout the country have presented columns and pages of arguments against municipal ownership, most of them assuming that this was a case of complete failure, and none of them, we believe, having noticed the further fact that the plant not only has not been abandoned, but that the City Council has appropriated \$10,000 for replacing the worn-out machinery. On the other hand, an indignation meeting was recently held in Morristown to protest against the poor electric lighting and gas service rendered by plants which were in this case operated by a private concern, which concern alleged that they had been unable to obtain new electric machinery as promptly as they wished, and that the gas mains were too small for the increased service demanded of them. Here was a case very similar to that of Easton, in that the plants had not been kept sufficient for the demands upon them, and yet we have seen no reference to this in any except the local papers. This is but one comparison of many which might be made, and we wish to call the attention of our readers to this partiality in the presentation of facts that they may make allowance therefor, if called upon to consider or make any decision upon the question of municipal ownership. There have been failures in municipal ownership, and there will continue to be. There are also failures by the score among private business concerns. But it is unfortunate that so much energy is being wasted in searching for shortcomings and so little in discovering how to avoid them.

CITY PLANNING

Its Influence Upon Real Estate Values—Desirability of Wide and Diagonal Streets—City Should Profit Directly by Increased Values

By NELSON P. LEWIS*

THE phenomenal advance in real estate values which has taken place in the last few years must have some substantial reason behind it. Good times and the tendency of our people to concentrate in large cities are largely responsible, as is evidenced by the fact that there are few cities of any size which are not enjoying a real estate boom.

For an explanation of the extraordinary real estate activity in New York we must look further. Our people are just beginning to realize the greatness of this city. The transportation companies were perhaps the first to appreciate this, and they have embarked upon huge enterprises involving vast expenditures and destined to eliminate the natural barriers separating the different boroughs constituting the greater city. Political consolidation took place on January 1, 1898. Physical consolidation was a very different matter, but the problems which it involved are now in a fair way of solution.

The availability of urban real estate is dependent upon a city plan. The more intelligent that plan, the greater will be the ultimate values. The remarkable growth of New York and the concentration of business and population in certain districts have demonstrated the impossibility of foreseeing how the city will develop or of providing years in advance the most suitable plan. There are still large areas in our outlying boroughs which are unmapped, but which are capable of a development which might be the most beautiful and successful which has ever occurred in any city. With the object lesson we have had it should be possible to insure very satisfactory, if not the best results.

Enormous sums have already been expended in the correction of mistakes and in the provision of adequate thoroughfares and approaches to the great bridges already built or under construction. The wisdom of providing occasional wide streets is clearly shown by an examination of the tax values for 1906.

ASSESSED VALUES OF REAL ESTATE IN NEW YORK,
PER FRONT FOOT

STREETS	MANHATTAN, BETWEEN—			Width, Feet
	2d and 3d Avenues	3d and 4th Avenues	5th and 6th Avenues	
12th.....	\$500	\$650	\$1,200	60
12th.....	500	650	1,200	60
14th.....	625	1,730	3,600	100
17th.....	.....	.....	2,000	60
19th.....	450	530	.....	60
21st.....	.....	.....	2,750	60
22d.....	440	670	4,000	60
23d.....	700	1,650	9,500	100
24th.....	400	750	4,000	60

*Chief Engineer, Board of Estimate and Apportionment, New York City.

These figures show the value per front foot for land only upon which taxes were paid last year. Fourteenth and Twenty-third streets are each 100 feet in width; the others are 60 feet wide. It will be said that these are business streets and the others residential. True, but why are they business streets? Simply because some one had the foresight to give them a generous width. The value of diagonal streets will also be shown by an examination of the tax values. Business is naturally attracted by these diagonal streets, which furnish the shortest distance between different sections of the city, drawing traffic, and consequently attracting business. The real estate man appears to have a horror of what are called "gores," or lots which are not rectangular, yet many of the most conspicuous buildings which we have are located upon such "gore" lots.

While a city plan is essential to give real estate a marketable or speculative value, its permanent value depends upon street improvements, and the more substantial these improvements, the greater the value. Small first cost is expensive in the end. Rental values are increased by smooth, clean, noiseless pavements and adequate drainage to a degree much greater than their increased cost.

The sums now being spent, and which it is proposed to spend, to convert the former cities and towns now comprising the Greater New York into a metropolitan district, are immense and almost deterrent in their magnitude, but the investment will doubtless be justified by the results.

Under the system prevailing in this country the city does not reap the benefit which it might from these great improvements. In some of the European capitals, the city not only acquires the land needed for laying out a great thoroughfare, but it also acquires the contiguous and adjacent property, the fee of which it either sells at an enormous advance or holds indefinitely, leasing the ground for improvements, the character of which can be dictated and the architectural treatment of the buildings erected are under its control. In this way the character and dignity of such thoroughfares can be assured.

Recommendations for Baltimore Pavements

Mr. Benj. T. Fendall, City Engineer of Baltimore, last summer visited London and several continental cities for the purpose of studying their pavements, and has made recommendations concerning the paving of Baltimore based upon these observations. Considering each class of paving in succession, he recommends as follows:

"Wooden Block—This class of pavement I do not recommend for general use. I do recommend it, however, on streets where a noiseless pavement is especially desirable. The streets around hospitals, for example, should all be paved with wood block. I do not recommend a concrete foundation over six inches in thickness. We have no record of any such foundation, where properly laid, ever having failed. A thin coat of tar on the surface of a block pavement and an inch of fine broken stone covering the tar when the pavement is first laid is desirable to reduce slipperiness.

"Sheet Asphalt—This class of paving is recommended on main thoroughfares outside of the business section, where the traffic is light and the grades do not exceed 2½ per cent. The foreign rock asphalt is not recommended, on account of its slipperiness and because of its cost.

"Bitulithic Pavements—This pavement is recommended on main thoroughfares outside of the business section, where the traffic is light and especially where the grades are too steep for asphalt. A bitulithic paving plant, to be owned by the city, is also recommended. Such a plant could be used for both bitulithic and sheet asphalt. I recommend this plant more for the purpose of stimulating wholesome competition among contractors than for actual use by the city with its own forces—a case of municipal ownership, but not necessarily municipal operation.

"Vitrified brick in the residential sections, on streets having light local traffic, is strongly recommended. On such streets a well-laid brick pavement should last a great many years. The first cost is not excessive, and the maintenance cost would be less than any other pavement, excepting only granite blocks. Vitrified brick is also recommended for alleys generally, and the paving of all alleys is the first work that should be started as soon as the sewers are completed.

"Stone block or Belgian block pavement is recommended for the streets in the business section, where the traffic is heavy."

ASPHALT PAVING IN UNITED STATES

A Criticism of the Report of Committee on Street Paving of the American Society of Municipal Improvements —Points at Issue

By CLIFFORD RICHARDSON

AT the recent convention of the American Society of Municipal Improvements at Birmingham, Ala., a committee composed of James Owen, of Newark, N. J., J. W. Howard, of New York, and E. A. Harper, of Kansas City, presented a report on street paving, which has had a wide circulation. As it contains certain statements which are quite erroneous, or based upon inaccurate data, and which reflect unfavorably upon the sheet asphalt paving industry, it seems but proper that these statements should be contradicted and the true condition of affairs made evident.

The first statement which must be controverted is that a decreasing amount of asphalt is being used for new construction in large cities. From the records of the Contract Department of the Barber Asphalt Paving Company it appears that in the years from 1904 to 1906 the following amounts of sheet asphalt surface were laid by that and other companies in the United States:

1904	4,849,731 yards
1905	5,912,357 yards
1906 (to Oct. 31)	6,240,426 yards

It must be borne in mind in considering the preceding figures that the records do not cover all contracts for sheet asphalt in territories in which the company does not operate, and that the actual amount of sheet asphalt laid must be somewhat larger than the figures given. From the above data it is quite apparent that the amount of asphalt for new construction is continuously increasing, and at a considerable rate, instead of decreasing as stated in the report.

The report further states that comparatively little asphalt pavement, except for resurfacing, is being laid in medium-sized cities. Data from the same source as the preceding and from the records of the New York Testing Laboratory show that, if we regard as medium-sized cities those between fifty and one hundred thousand in-

habitants, sheet asphalt has been laid to the following extent in the years 1904, 1905 and 1906:

Number of Cities	1904	1905	1906
19.....	153,703 yds.	268,870 yds.	494,456 yds.

It is also stated that almost no asphalt pavement has been laid in the past year in small cities, except in a few for the first time. This is quite erroneous, if we regard as small cities those below fifty thousand inhabitants, as sheet asphalt surface has been laid in one hundred and ten cities of that size, and to the following extent, in the years 1904, 1905 and 1906:

Number of Cities	1904	1905	1906
110.....	1,090,067 yds.	1,381,353 yds.	1,599,868 yds.

A statement is made that cheaper and poorer work is being done in the construction of sheet asphalt pavement at the present time than formerly. As an expert closely in touch with the business, the writer may be permitted to say that quite the contrary is the case. Portland cement is now being very generally used in the construction of the foundation, replacing the natural cement in use in the past, and with corresponding improvement in the character of the work; the technology of the industry has made great strides of late, and the fluxes available are much superior to those formerly employed. The sheet asphalt paving industry is one of progress and advancement along many lines and, with exceptional instances, it may be safely asserted that it is on a much better basis to-day than ten years ago, and that the pavements of this type are more durable to-day than any heretofore laid, although it must be confessed with an improvement in the form of construction called for still better surface might be laid. This, however, lies with municipal authorities, and not with the companies laying the pavements.

Cost of Macadam in Ft. Atkinson

AT Ft. Atkinson, Wisconsin, macadam roads are being constructed at much lower cost than in many, if not most other cities, according to Mayor A. R. Hoard. He informs us that they have an Austin crusher, run by a Case combined roller and engine, which has crushed 3,000 cubic yards of limestone during the past summer at an expense of 45 cents a yard; labor being paid \$2 a day. Teams at \$3.50 a day draw the crushed stone from the quarry $1\frac{1}{2}$ miles to the town, making four trips a day, and drawing two cubic yards to a trip; which makes the cost of hauling $43\frac{3}{4}$ cents a cubic yard. Spreading the stone on the road cost 5 cents a cubic yard, and rolling 2 cents more; the stone being put on in two coats to a total depth of 8 inches at the curb and 12 inches in the center of the road. The road is 33 feet wide. The total of the above costs is about 27 cents a square yard, or \$1 per lineal foot. It does not, however, include anything for grading to subgrade, nor for interest and depreciation on machinery, carts, etc.; nor probably for rental of quarry.

NEWS OF THE MUNICIPALITIES

Divers Subjects of General Interest and Their Treatment by City Councils and Officials—Streets, Waterworks, Lighting and Sanitary Matters—Police and Fire Items—Government and Finance

Roads and Pavements

AUGUSTA, GA.—Commissioner of Public Works Wingfield reports that during 1906 cement sidewalks to the extent of 109,396 square feet were laid, as well as 2,573 square feet of vitrified brick and 43,569 square feet of common brick.

COLUMBIA, PA.—The Board of Health has received a communication from Dr. Samuel G. Dixon, State Commissioner of Health, in which he refers to the danger of using the Susquehanna river water unless it be boiled. Fear is expressed that instructions issued at Scranton as precautionary measures against the spread of typhoid may not be obeyed in all cases and that the water of the Susquehanna may be polluted. The Columbia Water Company has an excellent filter plant, and since it has been in operation no case of typhoid has been traced to the use of filtered water, but in view of the unusual risk, boiling of water is advised.

COVINGTON, KY.—City Engineer W. E. Gunn's report to Mayor Beach shows that more street construction and reconstruction was done during 1906 than in any year in the history of Covington. The increase was principally in brick streets, of which 2.32 miles were laid. Five blocks of streets were macadamized and eight and a half blocks of asphalt were resurfaced. The original amount of asphalt paving in the city was 74,567 square yards; of this amount 14,275 yards were resurfaced during the year. The remaining 60,292 yards cost \$6,748, or 11.16 cents per square yard. As the cost of resurfacing is \$1.26 per square yard, the policy of resurfacing a few blocks every year will be continued. The total mileage of paved streets is now 11.26.

LEXINGTON, KY.—Among the items of an appropriation of \$80,300 for streets were the following: For street numbers and names, \$300; for sweeping and cleaning, \$10,500; for guttering and crossings, \$3,000; for macadam, \$20,000; for brick pavement repairs, \$20,000; for oiling macadam streets, \$10,000; for flushing paved streets, \$800.

MONTAVILLA, ORE.—The Board of Trade, which has been working for several months for an 80-foot macadamized boulevard from the city to Fairview, believes that it has at last removed all opposition to the plan. Present plans contemplate a 15-mile boulevard, following a high ridge, making a scenic highway from which travelers can view the valley for fifty miles north and east.

NEW ORLEANS, LA.—At a conference called by Mayor Behrman to consider the question of the condition of the river front streets and the opposition of draymen to the wide tire ordinance in consequence of that condition, the matter of nonconformity of grades as given by different departments at different times came up. Railroad tracks were laid by lines and levels given several years ago, and since then the Levee Board and Dock Board had raised grades, preventing the proper drainage of streets that conformed to the railroad tracks. The Belt road, recently laid, conforms to the high grade, creating further confusion. It was made evident that the engineers must get together and agree on grades before the streets can be put into a condition to make the enforcement of the wide tire ordinance reasonable.

WILMINGTON, N. C.—The proposition to repave Front street has been approved by the Board of Audit and Finance, provided the street car company and property owners will pay their share. City Engineer P. Matthew estimates the cost for brick or brick and bitulithic at \$42,967, of which the street car company should pay \$16,000 and the property owners \$12,000. It is assumed that a bond issue will be provided by the Legislature for a comprehensive system of street improvements.

Sewerage and Sanitation

COLUMBIA, S. C.—In his annual report to the City Council, Mr. A. W. Edens, Inspector of Sewers and Plumbing, says that he has had considerable trouble during the year with stoppages in the six-inch house connections between the street mains and the fence lines occasioned by the roots of trees growing into the pipes. In every case where it has been necessary to dig up the pipe it was found that the joints were not properly cemented at the bottom. In four years' time six-inch pipes have become entirely stopped up in this way. The roots of elm trees cause most of the difficulty.

COVINGTON, KY.—City Engineer W. E. Gunn's report to Mayor Beach shows a large amount of sewer work done during the year, although the Willow Run concrete sewer, 11 feet wide by 12 feet high, is not yet completed. The smaller sewers aggregate \$16,620 in cost. The total length of sewers in use at the present time is 32 miles. Trunk sewers will be necessary to connect Central Covington with the Willow Run sewer.

RICHMOND, IND.—Dr. Henry T. Davis, President of the State Board of Health, states that the Board will endeavor to have the Legislature pass a bill prohibiting the pollution of streams. Arguments in favor of the bill will be supplied by charts, maps and figures made by Prof. R. L. Sackett, showing conditions below Muncie. The Board will recommend the building of filtering beds similar in plan to those adopted for Richmond. It is anticipated that the subterranean supply of water will be exhausted and dependence on river water will be necessary.

WASHINGTON, D. C.—The number of cases of typhoid fever reported to the Health Department during 1906 was 1,152. Investigations made by the Health Department show that 129, or 11 per cent., were probably contracted outside of the District of Columbia; forty-eight, or 4 per cent., were probably contracted by direct contact with other cases; fifty-nine, or 5 per cent., were apparently contracted from milk. With respect to the remaining cases, most of them had been carefully investigated without disclosing satisfactory evidence to show the sources from which the disease was contracted.

Waterworks

CHICOPEE, MASS.—The annual report of the Water Commissioners, Patrick Rourke, Chairman, Andrew Gale and William Jameson, and of Superintendent Charles A. Bogardus, have been made out. The total receipts for the year amounted to \$50,245 as compared with \$43,914 last year. The water rentals received were for scheduled rates \$32,653 and meter rates \$16,323. As a result of the new

meters and the close inspection of the system, the amount of water pumped from Cooley Brook during the year showed a decrease of 49,264,508 gallons—a full month's supply. During the year the department laid 1,200 feet of 8-inch pipe, 1,120 feet of 6-inch and 352 feet of 4-inch. The total bonded indebtedness of the works is \$213,000 and the present value \$449,368.

ELKHART, IND.—The Mayor and Board of Public Works are considering the bids of Clark & Trainer, of Chicago, and the Elkhart Water Company for a franchise for supplying the city with water. Clark & Trainer claim superiority of the standpipe and tubular well system, on which they bid, over the system of direct pumping into mains employed by the Elkhart Water Company. Mr. State, for the local company, submitted statistics showing that of 148 cities averaging about the same size as Elkhart, ninety-nine have the direct, and forty-nine the standpipe system; over half of those employing the standpipe system also pump directly into the mains in case of fire. Both companies submitted detailed schedules of prices.

JERSEY CITY, N. J.—Mr. William A. Boland, who is said to hold an option on the title of the Rockaway River water shed, from which Jersey City derives its supply, states that if the city wishes to carry out its plan of buying the water shed they will have to pay him \$8,250,000, which is \$655,000 more than the price for which the city contracted to buy the works. Boland claims that the city's option has expired. The city's attorneys claim that they can enforce a penalty of \$500 per day on the water company for supplying impure water, an amount which would equal Boland's claim. The city will make a bona fide offer for the waterworks, and if it is not accepted the matter will go to the courts.

MOBILE, ALA.—Preliminaries of the formal transfer of the Bienville Water Company to the city of Mobile were arranged at a conference between Mayor P. J. Lyons, City Attorney Boone and other officials with the owners of the property who came from Philadelphia to complete the transfer. The city will give \$350,000 in bonds for the property, as authorized in an election held last August.

NEW ORLEANS, LA.—In addition to the 100 miles of mains under construction mentioned in our issue of January 2, there are also under construction machinery, engines and pumps for the water purification station estimated to cost \$500,000, and the water purification station, including sedimentation and coagulation basins, filters and piping, for all of which the contract price was \$1,840,727.

OLDTOWN, ME.—On motion of Alderman Lunt a committee has been appointed to investigate the water service which the city obtains from the Bangor Railway and Electric Company. It is claimed that private citizens are paying at an 11-cent rate for what the city gives 15, 20 and 25 cents for. Of the 73,000 cubic feet supplied the city, 25 cents per 100 is charged for the first 2,000 feet, 20 cents for the second, and 15 cents for the remaining 69,000 feet.

ST. CLOUD, MINN.—About a year ago it was determined to sink fifteen wells along the bank of the Mississippi river, where it was known that springs of good water existed. As the work progressed it became evident that a very large vein of water had been found. The flow of one of these wells was recently measured by A. R. Starkey, C.E., of the St. Paul Waterworks, and City Engineer Chute. A flow of 674,000 gallons in twenty-four hours was shown by the test. The present consumption of water is 500,000 gallons a day.

Street Lighting

JOLIET, ILL.—Acting upon the decision given some time ago by City Attorney Haley, to the effect that the United Gas and Electric Company, the recently consolidated gas company, was illegally exercising its powers in the streets of Joliet, together with certain additional information which he had obtained, Mayor Barr gave the City Council a special message, directed against the gas company, and urging the city to stop all further privileges on the part of that company until a new franchise had been secured from the Council. Without comment, the Council, by a unanimous vote, indorsed the views of the Mayor, and by the approval of both the message and the resolution submitted by the Mayor, gave the Mayor full power to proceed against the gas company.

PORTLAND, OREGON.—As the result of an investigation started nearly a year ago, a report on gas service has been submitted to Council by a special committee. The report was to the effect that the gas furnished was of poor quality, that the public had been grossly overcharged for the gas furnished, and that the company's methods of dealing with the public are unsatisfactory and cumbersome. The City Attorney has been requested to submit a report as to the legality of measures to regulate the service and prices, or annul the franchise.

SPRINGFIELD, O.—Citizens who have been using natural gas for illuminating purposes have been notified by the Springfield Gas Company that unless they discontinue this practice immediately the gas will be turned off. The company claims that the natural gas ordinance provides that the gas shall be used for heating, fuel and power purposes only, and that if the company permitted its use for illuminating purposes it would be in danger of losing its franchise.

WHITESBORO, N. Y.—At a meeting of the village Board of Trustees, a franchise was granted the Utica Gas and Electric Company to lay mains for a distributing system. In return for this privilege Mr. M. J. Brayton, of the Utica Company, promised the village an all-night electric-light service without additional cost, in place of the present limited service, until the expiration of the contract on March 31, 1907.

Fire and Police

AUGUSTA, GA.—According to the report of Fire Chief Reynolds, the department responded to 306 calls, an excess of 57 over the 1905 calls. The actual fire loss for the year was \$51,560, of which \$30,410 was sustained in consequence of a fire in the Leonard Building. The total expenditures for the year were \$60,012. Among the recommendations made are appropriations for a new fire house, a training school and extensive improvements in the fire alarm system.

BIRMINGHAM, ALA.—At the top of the page of the new telephone directories of both companies the words "Birmingham Fire Department, 'Phone 545," will be printed. This is in accordance with an order issued by Mayor Ward.

PHILADELPHIA, PA.—According to the annual report of the Fire Insurance Patrol, the total number of fires was 3,392, an increase of 13 over 1905. The losses were \$2,115,155, an increase of \$772,044 over 1905. In the congested district the losses were \$587,044, caused by 221 fires, being an increase of 45 fires.

HAVERHILL, MASS.—Mayor Roswell L. Wood's first veto was of an amendment to the city ordinance that was passed by the City Council last year, creating two drivers of the patrol wagon instead of one. A temporary driver had been employed, and the amendment was designed to make the position permanent. The veto was

based on the claim that under the proposed ordinance the patrol wagon driver could not be compelled to drive the ambulances, as the ordinance specifically provides that they shall be drivers of patrol wagons. The driver of the patrol wagon has always driven the ambulance without protest.

NEW YORK, N. Y.—An informal test of the efficiency of a new fire alarm bell was made a day ahead of schedule time by the turning in of an alarm after the apparatus was installed and before it was officially tested. At the intersection of Broadway, Sixth avenue and Thirty-fourth street, one of the busiest crossings in the city, a 12-inch gong has been installed which rings when the truck in a nearby house starts out. The new alarm was installed by Chief Martin, of the Fire Alarm Telegraph Bureau. This idea has been in successful use in Bridgeport, Conn., and other towns.

SAN FRANCISCO, CAL.—Under the order of Chief of Police Dinan, and at the request of the Board of Education, twenty policemen accompanied a train of wagons and went to the coal bunkers to obtain coal for the use of schoolhouses. Owing to a dispute between the contractor and the owners of the coal pockets a school had to be closed for want of fuel.

TOLEDO, O.—William Mayo, Chief of the Fire Department, has submitted his annual report. During the coming year four second-size steam fire engines will be purchased, also two city service hook and ladder trucks, an aerial truck will be rebuilt, four stations will be remodeled and thirty-one men will be added to the department, of whom twenty-one will man the new apparatus. The number of alarms during 1906 was 759. The fire loss was \$188,400. The insurance on property involved was \$3,019,548. The department now consists of 16 firehouses, 10 steam fire engines, 16 combination hose and chemical wagons, 4 hook and ladder trucks, 1 aerial truck, and 1 water tower. The force consists of 159 officers and men. The Chief urges the purchase of a fireboat and the laying of high-pressure water mains.

Government and Finance

CHICAGO, ILL.—In connection with the proposition for a new City Hall, Mayor Dunne advocates the establishing of bureaus centrally located in the north, west and south divisions. The idea is to include the payment of water taxes and licenses at the bureau stations for the convenience of citizens and to maintain only the principal executive offices in the City Hall.

CLEVELAND, O.—The City Auditor, in sending out blank proposal sheets for bonds—\$290,000 sewer and paving bonds are now being advertised—attaches to the sheet a copy of the advertisement for bids, statistics of the city showing bonded indebtedness and property valuation, a certificate that the bonds were offered to the sinking fund and declined, a copy of the official proceedings authorizing the issue, the ordinance in full, and a copy of the bond, showing necessary indorsements.

NEW HAVEN, CONN.—The Board of Finance is considering a plan of collecting taxes in such a way as to make it unnecessary for the city to borrow money temporarily in anticipation of taxes. The proposition is to have tax collections begin January 1, and make the bills payable in four installments.

NEW YORK, N. Y.—More than two thousand wealthy owners of personal property who have hitherto escaped taxation will be assessed for personal taxes this year, in accordance with the terms of the Saxe law, which provides that all personal property of non-residents of the State having an actual situs in the State, and not forming a part of capital invested in business, shall be assessed in the name of the owner. This law will increase the

assessment roll and the borrowing capacity of the city, so as to permit rapid transit plans and improvements that it would otherwise be impossible to carry out.

PHILADELPHIA, PA.—For the first time in the history of the Councils in Philadelphia a woman took part in the legislative proceedings. The Mayor's new secretary, Miss Margaret Forde, appeared on the floor of both branches and addressed each president as follows: "I have the honor to present to you messages from His Honor the Mayor." As she retired the lawmakers applauded vigorously.

Refuse Collection and Disposal

DENVER, COL.—The sidewalks in the business sections are washed three times a week, excepting during freezing weather. One flushing machine, driver and man with hose can wash about forty blocks a night. The beneficial effect of this washing is noticeable.

JERSEY CITY, N. J.—The following ordinance has been passed regulating the size of ash and garbage cans: Hereafter all ashes or garbage deposited on the sidewalk shall be placed in a round or barrel-shaped receptacle, of wood or iron, not less than 30 inches nor more than 36 inches high, and not less than 18 inches in diameter, provided that receptacles used for garbage exclusively may be round or barrel-shaped cans of iron not less than 16 inches high and not less than 14 inches in diameter.

YOUNGSTOWN, O.—Philip Hagan, member of the Board of Public Service, announces his intention of enforcing the new law requiring all able-bodied men to do two days' work on the streets or pay \$3 into the street cleaning and repair fund, provided the funds run short; also that it is his intention to keep the streets in better order than ever before. Drawings for waste paper boxes are being made by City Engineer Lillie, and when the boxes are placed on the sidewalk at the curb, the laws regarding depositing litter in the streets will be strictly enforced.

Parks and City Beauty

ATLANTA, GA.—President Walter R. Brown, of the Board of Park Commissioners in his annual report recommends the following improvements: A new refreshment stand for the pavilion which, when finished, will have a seating capacity of 5,000; increased supply of plants for the greenhouses; more animals for the Gress zoo; the improvement of Piedmont Park, if its use for expositions is to be discontinued; a continuation of the annual egg hunt; the erection of a suitable monument to L. P. Grant, the donor of much of the park land.

HARTFORD, CONN.—Alex. Cummings, who had been appointed to make an inspection and inventory of the trees of the streets of the city, reported that he had examined 5,800 trees. Their conditions and needs were tabulated. He reported that seventy dead trees have been removed from the street lines in various parts of the city, and about 150 trees having dead limbs have been pruned. The investigation showed that the majority of the street trees in the city need pruning, spraying and cementing of cavities. Mr. Cummings made a special report of the street trees on Washington street. There are 271 trees on this street, divided into twelve species. The trees are unusually large, and the value of them, figuring on condition of trunk, location and species, is \$37,500.81. The elms show traces of more or less serious trouble with elm leaf beetle, the antidote of which is spraying with emulsified arsenate of lead. Of 114 maples, ninety-two are affected by cottony maple scale, the remedy for which is spraying with kerosene emulsion. Two hundred of the trees need pruning for dead wood. In concluding his report, Mr. Cummings said that with proper care given

to the trees of the city streets, they would respond abundantly in beauty.

HOBOKEN, N. J.—After a conference with Councilman Zand, City Park Horticulturist B. Franklin Lissauer has decided to set men to work renovating the public parks of the city, and expects to have them in better condition than they have ever been in their history if he finds it possible to carry out his ideas. Superintendent Lissauer was formerly connected with the Department of Agriculture at Washington, and much is expected from the results of his work. The first work done will be scraping the trees so as to free them from caterpillars. Another improvement will be the removal of all mounds in the parks, where, owing to the poor soil, grass does not grow abundantly.

PORTLAND, OREGON.—Plans for an elaborate system of city parks were discussed at a joint meeting of the Initiative One Hundred, City Council and City Park Board. The plans embrace the purchase of Hawthorne Park, Mount Tabor, Council Crest, and other available property, and the building of a series of boulevards around the city and playgrounds for children. In order to carry out the plans a bond issue of \$1,000,000 will be necessary. Council will be asked to appropriate \$5,000 to defray the expenses of a preliminary survey.

Rapid Transit

CLEVELAND, O.—As the result of a thirty-day armistice between the Cleveland Electric Company and the Low Fare Railway Company (the successor of the Forest City Railway and the Municipal Traction Company) citizens of Cleveland are enjoying three-cent car rides. This result has been brought about by a number of legal decisions, the principal one of which, filed in the United States Supreme Court, held that some of the most important of the Cleveland Electric Company's franchises had expired. Nevertheless, their property rights in the tracks, poles, etc., were such as to prevent these from being turned over at once to any rival company. The Cleveland Electric Company offered to operate its cars on a three-cent fare basis, pending the advertisement and sale of franchises over the streets in question. The offer was accepted, and the Low Fare Railway Company is also operating on the same basis.

NEW YORK, N. Y.—The draft of the form of contract for the new Lexington avenue subway route, in conformity with the Elsberg law providing for separate bids for construction and operation, has been submitted to the Rapid Transit Commission by the board's committee on plans and contracts. A contractor for construction of the road, which will cost \$30,492,500, must deposit \$1,080,000 if his bid is for the entire Lexington avenue route. Each bidder who proposes to operate the road must submit a list of the roads with which connections will be made and the terms of the transfers proposed. Provision will be made for the construction of pipe galleries. Prevailing rate of wages and eight-hour day clauses will be in the contract. The display of advertisements in the subway will be prohibited. Placards cannot be displayed in the cars. The contractor will be held more strictly accountable for damages than has hitherto been the case.

PHILADELPHIA, PA.—The Trades League recently placed itself on record as favoring limited franchises for the street car companies, ultimate municipal ownership of the roads, a reduction in fares after a fair return to the stockholders and payment in full for Rapid Transit stock in order to secure funds to make necessary improvements. These points are contained in the report of the League's street railway committee, which was presented by its chairman, Thomas Martindale, and unanimously adopted by the League.

Miscellaneous

ALTON, ILL.—During the past year the city has ranked fourth among the cities of the State in the amount of public work completed. During the present year the work of paving and sewerage will be continued as ordinances have already been passed and approved. Mayor Ed. Beall states that brick is the favorite paving material. City Engineer T. M. Long will be glad to supply specifications to contractors who may be interested.

DENVER, COL.—A banquet was recently tendered to Mayor Robert W. Speer by the business men of Denver. Mayor Speer delivered an address in which he spoke at length of the public improvements that had been carried out in Denver, as well as the plans for the future. Among the works to be carried out this year are placing wires underground; ornamental street lighting to be extended to another street; an auditorium to be completed at which concerts will be given for a nominal price of admission or entirely free. Public baths will be provided. A new steel viaduct will be built across Twenty-third street.

ELMIRA, N. Y.—Three hundred representatives attended the second annual banquet of the Business Men's Association. Secretary Roy S. Smith, of the Chamber of Commerce, called attention to the fact that during the last fourteen months sixteen new industries had located in Elmira. Among the industrial companies greatly extending their plants are the American Bridge Company, the American La France Company, the Kennedy Valve Works, and the American Salesbook Company.

MEMPHIS, TENN.—City Engineer James Omberg proposes to improve the system of displaying signs for street names. He wishes to suspend signs from the electric and gas light poles on the corners of the streets so that they can be plainly seen under the light, so that there will be no necessity as at present to enter private property to ascertain the name of a street. Nearly every corner in the city has a pole of some kind, and to attach a bracket to this is a simple matter.

NEW YORK, N. Y.—The Merchants' Association of New York announces that merchants' rates from that portion of the Central West designated as Central Passenger Association Territory, will be in effect to New York City on February 9-13 and March 2-5, with a thirty-day limit in either case. The rate is a fare and a third.

PITTSBURG, PA.—Mayor George W. Guthrie has recommended that an appropriation of \$2,000 be made to provide Pasteur treatment for hydrophobia. The matter came up at the instance of City Comptroller Larkin, whose attention had been called to the case of a child who had been successfully treated at Mercy Hospital. The treatment is expensive and the bill was not paid by the city because there was no appropriation.

QUINCY, ILL.—The curfew ordinance, adopted by the City Council several months ago, went into force for the first time on January 12. It provides that all boys and girls 15 years of age or under shall be off the streets at 9 o'clock in the evening. Instead of ringing of bells the signal will be given by blowing a large factory whistle.

TOLEDO, O.—According to the new license ordinance, the prices for cab hire will be regulated and the high schedule of prices hitherto maintained by a local combination will be abolished. After-midnight prices will be abolished and prices will be the same at night as in the day. License numbers in large figures will have to be carried conspicuously by each cab. A schedule of prices will be plainly printed and kept in each cab. The fare from the railway station to central points will be reduced from 50 to 25 cents. Licenses will be confiscated if overcharges are proved. The rate per mile for from one to four passengers will be 50 cents, or two-horse vehicles, one to four persons, one hour, \$2, second hour, \$1.

THE WEEK'S CONTRACT NEWS

Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards

BIDS ASKED FOR

	CITY	RECEIVED UNTIL	NATURE OF WORK	ADDRESS INQUIRIES TO
Street Improvements				
Maryland.....	Baltimore.....	January 23, 11 A.M.....	Sheet asphalt repairs for entire city.....	B. T. Fendall, City Engineer.
Indiana.....	Indianapolis.....	January 24.....	Grading, graveling, etc., several streets.....	Jos. Elliott, Pres. Bd. Pub. Wks.
Minnesota.....	Minneapolis.....	January 25.....	4,000 sq. yds. vit., 45,000 creosoted and 10,000 cedar block; 2,000 cu. yds. crushed granite, 5,000 lin. ft. granite and 10,000 sand-stone curb; 15,000 bbls. Portland cement.....	Andrew Rinker, City Engineer.
Ohio.....	Cleveland.....	January 25.....	Grading, draining and paving with brick 24 sts.; asphalt, 2 sts.; Medina stone, 1 st.....	W. J. Springborn, Pres. Bd. Pub. Ser.
Ohio.....	Cincinnati.....	January 25, noon.....	Grading, laying asphalt, etc., Poplar St.....	M. J. Keefe, Clk. Bd. Public Service.
Ohio.....	Cincinnati.....	January 25.....	Paving approach to bridge in Whitewater.....	Board of County Commissioners.
Nebraska.....	Omaha.....	January 26.....	Paving three roads with brick or macadam.....	County Clerk.
Illinois.....	East St. Louis.....	January 28, noon.....	Grading brick, paving sewers, etc., 13th st.....	W. J. Crocker, City Engineer.
Alabama.....	Bessemer.....	January 29.....	Constructing 12,000 sq. yds. cement sidewalk.....	W. H. McEniry, City Engineer.
Indian Territory.....	Bartlesville.....	January 29.....	16,000 sq. yds. vitrified brick paving.....	W. H. Whaley, City Engineer.
Ohio.....	Cincinnati.....	January 31, noon.....	Granite block, also brick paving, curb, etc.....	M. J. Keefe, Clk. Bd. Public Service.
Indiana.....	Princeton.....	February 1.....	Constructing 11 miles macadam gravel road.....	Harry R. Embree, Co. Aud.
Pennsylvania.....	Titusville.....	February 1.....	Paving streets; estimated cost, \$70,000.....	H. A. Holstein, City Engineer.
Massachusetts.....	Holyoke.....	February 1.....	12-ton steam roller, with Buffalo Pittsroller in exchange.....	M. F. Walsh, Chm. Bd. Pub. Wks.
Ohio.....	Coitsville.....	February 2, 10 A.M.....	Grading and surfacing 13,500 ft. McGuffey rd.....	S. D. L. Jackson, Youngstown.
Ohio.....	Norwood.....	February 2.....	Grading, macadamizing, concrete curb and gutter, cross-walks, drains, etc., five avenues.....	J. A. Stewart, Traction Bldg., Cin.
Indiana.....	Bloomfield.....	February 5, 1:30 P.M.....	Gravel and macadam rd. Wright township.....	Peter M. Cook, County Auditor.
Indiana.....	Winchester.....	February 5, 1 P.M.....	Grade and pave 51,820 ft. with crushed stone.....	Mack Pogue, County Auditor.
New Jersey.....	Somerville.....	February 5, 10 A.M.....	Macadamizing 3.14 m.'s road in Branchburgh.....	H. W. Baird, Director Freeholders.
Indiana.....	Logansport.....	February 6, 10 A.M.....	Constructing Shafter gravel road.....	Geo. N. Cann, County Auditor.
Ohio.....	Cincinnati.....	February 7, noon.....	Macadam, curb, gutter, etc., Stanley Ave.....	M. J. Keefe, Clk. Bd. Public Service.
Ohio.....	Cincinnati.....	February 7, noon.....	Building roadway, etc., Branch City Hosp.....	M. J. Keefe, Clk. Bd. Public Service.
Texas.....	Denison.....	February 7.....	20,000 sq. yds. vit. brick pavement, Main St.....	R. I. Parks, City Engineer.
Pennsylvania.....	Williamsport.....	February 11, noon.....	Building undergrade crossing, Campbell St.....	James F. Fisher, City Engineer.
New Jersey.....	Bogota.....	February 12, 8 P.M.....	9,200 sq. yds. macadam; 1,950 sq. yds. gutters; 10,500 lin. ft. curb; 10,500 lin. ft. flagwalks; six streets.....	Peter F. Hopper, Chm. St. Com.
Indiana.....	Greensburg.....	February 15.....	Constructing gravel road in Fugit township.....	County Commissioners.
Water Supply				
New York.....	Corning.....	January 23, 8 P.M.....	Extending and improving water system.....	J. F. Witmer, Buffalo, Engineer.
Nebraska.....	Mitchell.....	January 24, 2 P.M.....	125,000 lbs. steel bars for reinforcement of concrete, U. S. Reclamation Service.....	E. A. Hitchcock, Washington, D. C.
Michigan.....	Muskegon.....	January 28, noon.....	6,000,000 gal. and 10,000,000 gal. cap. pumping engine, steam or electric power.....	William Dixon, Supt. Water Works.
Ohio.....	Youngstown.....	January 28, noon.....	Gate valves, fire hydrants and 5,460 lbs. pig lead.....	G. T. Prosser, Clk. Bd. Pub. Serv.
New Jersey.....	Asbury Park.....	January 28, noon.....	Erecting pump, 2,500,000 gals. daily capacity against pressure of 75 lbs.....	John L. Coffin, Superintendent.
Illinois.....	Chicago.....	January 30.....	170 tons 36-in. c. i. flanged castings, 34 tons pig lead, and 200 1/2-in. 100 1/2 in., 60 2-in. and 2 1/2-in. water meters.....	Wm. L. O'Connell, Com'r Pub. Wks.
Minnesota.....	St. Paul.....	January 30, noon.....	Furnishing 31,000 to 47,000 ft. 6 to 16-in. pipe; 4 to 24-in. watergates; hydrants, 1,200 stop boxes; valve boxes, 4 to 24-in.; brass goods; c. i. specials, etc., required during 1907; also for hauling.....	John Caulfield, Sec. Water Com'rs.
New Jersey.....	Bloomfield.....	February 1.....	Constructing new Waterworks system.....	Wm. L. Johnson, City Clerk.
District of Columbia.....	Washington.....	February 2, noon.....	Furnishing 3, 4, 6 and 12-in. cast-iron pipe.....	H. B. F. Macfarland, Commissioner.
Florida.....	Jacksonville.....	February 4.....	Two water-tube boilers and appurtenances.....	R. N. Ellis, Supt. Bd. W. W.
Pennsylvania.....	Philadelphia.....	February 5.....	Boiler equipment for Lardner's Pt. Pumping Station No. 3; Contract No. 95.....	John R. Hathaway, Dir. Dept. Pub. Works.
Ohio.....	Cincinnati.....	February 7, noon.....	Extending water supply, Branch City Hosp.....	M. J. Keefe, Clk. Bd. Public Service.
Connecticut.....	Waterbury.....	February 12.....	Extending high-pressure service.....	Robt. A. Cairns, City Engineer.
Kansas.....	Oswego.....	February 19, 8 P.M.....	Steam pumps, boilers, reservoirs and bldgs.....	Judge Nelson Case, Chm. Water Com.
Chihuahua, Mexico.....	Parral.....	February 28.....	300 water meters for first installations.....	Junta de Mejoras Materiales.
Manitoba.....	Winnipeg.....	March 1, 2:30 P.M.....	Water pipes, specials, manholes, valves, etc.....	H. N. Ruttan, City Engineer.
Sewerage				
Ohio.....	Cincinnati.....	January 24, noon.....	Laying sewers, etc., White St., also in Ravine.....	M. J. Keefe, Clk. Bd. Public Service.
Minnesota.....	St. Paul.....	January 24, 2 P.M.....	Building fire sewers in ten streets.....	R. L. Gorman, Clk. Bd. Pub. Wks.
Ohio.....	Cincinnati.....	January 25, noon.....	Constructing 3,782 ft. 12 to 24-in. pipe sewers; cost, \$12,848.....	M. J. Keefe, Clk. Bd. Public Service.
Minnesota.....	Minneapolis.....	January 25.....	2,000,000 sewer brick, 5,000 bbls. Portland and same natural cement, 200 tons castings and vit. pipe.....	Andrew Rinker, City Engineer.
Illinois.....	Ottawa.....	January 26, noon.....	Constructing main drain 11,600 ft. long, also one 10,540 ft. and branch 250 ft., and laying drain tile.....	W. A. Dunaway, Court House
New Jersey.....	Asbury Park.....	January 26, noon.....	Constructing two miles pipe sewer.....	John L. Coffin, Superintendent.
Indiana.....	New Castle.....	January 26, 2 P.M.....	Constructing tile drain.....	Joshua F. Mercer, Supt. Construction
Indiana.....	Greenfield.....	January 26, 2 P.M.....	Constructing 1,000 ft. 10-in. tile, 1,165 ft. 12-in. tile, 2,670 ft. 14-in. drain tile, cement wall.....	Oliver H. Monger, Drainage Com'r.
Michigan.....	Hart.....	January 26.....	Laying 1,600 ft. 15-in. tile in 7-ft. trench.....	I. B. Dayharsh, City Clerk.
Ohio.....	Cincinnati.....	January 26.....	Constructing drains in Springfield Township.....	Fred Tresch, Chm. Co. Board.
New York.....	New York.....	January 28, 3 P.M.....	Building sewer and appurtenances, E. 10th St.....	John F. Ahearn Boro. Pres.
Pennsylvania.....	Norristown.....	January 30, 8 P.M.....	Laying 2,500 ft. double 8-in. vitrified sanitary sewer; also 500 ft. 8-in. vit. pipe sewer.....	S. Cameron Corson, Engineer.
Ohio.....	St. Mary's.....	January 10.....	Complete sanitary sewer system, 14 miles.....	Riggs & Sherman, Toledo, Eng'rs.
Ohio.....	Marion.....	February 1, noon.....	Constructing sanitary sewer and cellar drain.....	Wm. Fies, Clk. Bd. Public Service.
Wisconsin.....	Pond du Lac.....	February 1.....	Constructing 12 miles of sewers.....	L. A. Pettabone City Engineer.
New Jersey.....	Orange.....	February 4.....	Sewer pumps in Chestnut St. station.....	Fred T. Crane, City Engineer.
Missouri.....	Cape Girardeau.....	February 4, 8 P.M.....	Complete sewer system, Dist. No. 1: 12 miles pipe 8- to 21-in. drain and appurtenances.....	Granbery Jackson, Nashville, Tenn.
Ohio.....	Cincinnati.....	February 7, noon.....	Constructing sewers and drains, Div. 14.....	M. J. Keefe, Clk. Bd. Pub. Serv.
Ohio.....	Cincinnati.....	February 7, noon.....	New Sewer system for Branch City Hospital.....	M. J. Keefe, Clk. Bd. Pub. Serv.
Iowa.....	Port Dodge.....	February 21.....	Constructing drains Nos. 1, 7, 17, 24, and 28.....	H. S. Holm, County Auditor.

Public Buildings

Michigan.....	Kalamazoo.....	January 24, noon.....	Library, gymnasium, and assembly hall.....	E. W. Arnold, Battle Creek, Mich.
Missouri.....	St. Louis.....	January 25, noon.....	Power and light plant at Industrial School.....	A. J. O'Reilly, Pres. Bd. Pub. Imp't.
Minnesota.....	St. Peter.....	January 26.....	Erecting brick high school; cost, \$35,000.....	Thori, Allan & Fisher, St. Paul, Archts.
New York.....	New York.....	January 28, 10 A.M.....	Erecting station house, prison and stable.....	Theo. A. Bingham, Police Com'r.
New York.....	Brooklyn.....	January 28, 11 A.M.....	Heating, ventilating, etc. Eastern Dist. High School.....	C. B. J. Snyder, Supt. Sch. Bldgs.
Iowa.....	Tama.....	January 28.....	Erecting two school houses.....	Arthur Manful, Sec'y, R. F. D., No. 4
Ohio.....	Oberlin.....	January 28.....	Erecting Carnegie library for Oberlin College.....	Patton & Miller, 140 Dearborn St., Chicago, Ill., Architects.
New York.....	Brooklyn.....	January 30, 11 A.M.....	Marble base, etc., corridors Borough Hall.....	Bird S. Coler, President.
Louisiana.....	New Orleans.....	January 30, noon.....	Erecting addition to Charity Hospital.....	Dr. E. S. Lewis, Vice-President.
District of Columbia.....	Washington.....	January 30, 2 P.M.....	Erecting building for power plant, etc.....	Capt. J. S. Sewell, Soldiers' Home.
Rhode Island.....	Providence.....	January 30, 3 P.M.....	Completing U. S. Post Office building.....	J. K. Taylor, Washington, D. C.
Wisconsin.....	Milwaukee.....	January 31, 4 P.M.....	Erecting additional 10th Dist. school No. 1.....	Frank M. Harbach, Sec'y Sch. Dir.
Indiana.....	Crawfordsville.....	January 31.....	Building extension to U. S. Post Office.....	J. K. Taylor, Washington, D. C.
South Carolina.....	Newberry.....	February 1, noon.....	Erecting new County Court House.....	Frank P. Milburn & Co., Washingt., D. C., Architects.
Iowa.....	Leon.....	February 1.....	Erecting \$75,000 Court House.....	A. S. Thorp, Clk. Dist. Court.
Virginia.....	Richmond.....	February 1.....	Fire-proof high school building, 180 x 220 ft.; estimated cost, \$500,000.....	Charles W. Bryant, Architect.
Kansas.....	Emporia.....	February 1.....	Erecting modern 8-room brick school.....	M. N. Clark, Clk. School Bd.
Virginia.....	Norfolk.....	February 4, noon.....	Brick storehouse at Fort Monroe.....	Jos. E. Kuhn Maj. Engineers.
Louisiana.....	New Orleans.....	February 4, 2 P.M.....	Erecting court house 250x290 ft. 4 stories, pile foundations, stone and terra-cotta exterior, electric elevator, wiring, heating, etc., steel or reinforced concrete frame and floor construction; estimate, \$175,000.....	Bernard McCloskey, Pres. Com.
North Carolina.....	Newbern.....	February 4.....	Rebuilding and remodeling County jail.....	C. E. Foy, Chm. Co. Com'rs.
North Dakota.....	University.....	February 5.....	Library building State Univ'y, cost, \$60,000.....	J. W. Wilkerson, Sec'y Bd. Trustees.
Indiana.....	South Bend.....	February 5.....	Erecting new Kaley school.....	Freyermuth & Maurer, Architects.
Kansas.....	Fort Leavenworth.....	February 6, 11 A.M.....	Cavalry drill hall and addition to Bldg. No. 1.....	Capt. J. E. Normoyle, Q. M.
Ohio.....	Cincinnati.....	February 7, noon.....	Erecting smallpox hosp., tuberculosis ward, laundry and power bldg. and nurses' home, all complete.....	M. J. Keefe, Clk. Bd. Public Service.
Ohio.....	Columbus.....	February 7, noon.....	Remodeling Chemistry Bldg., State Univ'r.....	Burns & Pretzinger, Dayton, Archts.
Missouri.....	Marshall.....	February 10.....	Erecting high school.....	J. H. Felt & Co., Kansas City, Archts.
Missouri.....	Mexico.....	February 10.....	Erecting high school.....	J. H. Felt & Co., Kansas City, Archts.
New Jersey.....	Fort Hancock.....	February 11, 3 P.M.....	Building ordnance barracks, Proving Gr'nd.....	Commanding Officer, Highl'ds P. O.
Florida.....	Pensacola.....	February 12, noon.....	Erecting City Jail and Police Headquarters.....	Aushfield & Blount, Architects.
Virginia.....	Norfolk.....	February 12, 10 A.M.....	Heating and ventilating system, Bldg. No. 36.....	Commandant, Navy Yard.
Ohio.....	Marion.....	April 1.....	Four-story addition to school; cost, \$10,000.....	Geo. B. Christian, Jr., Clerk. Bd. Ed.

Bridges

Massachusetts.....	Boston.....	January 24, noon.....	Building steel draw and spans, Northern Ave.	William Jackson, City Engineer.
Ohio.....	Cincinnati.....	January 25, noon.....	Building bridge Specifications No. 442.....	Fred Dreihls, Clk., Co. Com'rs.
Indiana.....	Indianapolis.....	January 25.....	Building bridge over White river; cost, \$180,000.....	County Commissioners.
Ohio.....	Cincinnati.....	January 25.....	Building bridge in Green Township.....	W. H. Blair, Pres. Co. Com'rs.
Iowa.....	Des Moines.....	January 30.....	Taking down and re-erecting steel bridge.....	Geo. D. Dobson, City Engineer.
Minnesota.....	Hallock.....	January 31.....	Building iron bridge with 100-ft. span.....	N. G. Brown, Village Clerk.
Alabama.....	Birmingham.....	February 12, noon.....	Erecting 12 new steel bridges, and replacing wooden joists and hand-rail with steel, 6 bridges.....	P. S. Milner, County Engineer.
California.....	Salinas.....	February 5.....	Bridge; 1,100 ft. trusses, 780 ft. approaches; also 500 ft. Pratt trusses, 504 ft. pile trestle approach.....	Lou G. Hare, County Surveyor.
Louisiana.....	LaFayette.....	February 7.....	Constructing iron draw-bridge.....	Police Jury.
Indiana.....	Hammond.....	February 8.....	Building 3 bascule bridges for Chicago, Indiana & Southern Ry. Co.; cost, \$250,000.....	W. C. Hotchkiss, Chicago, Gen. Man.
Alabama.....	Cullman.....	February 14, noon.....	Building steel bridge over Eight-Mile Creek.....	Court of County Commissioners.
Ohio.....	Marion.....	February 14.....	Building 152 ft. bridge near Waldo.....	County Commissioners.

Miscellaneous

New York.....	West Point.....	January 24, noon.....	Constructing traveling crane.....	Quartermaster.
New York.....	New York.....	January 24, 3 P.M.....	Building timber jetty, Seaside Park.....	Moses Herrman, Pres. Pk. Comrs.
Missouri.....	St. Louis.....	January 25, 10 A.M.....	Disposal of garbage for a term of years.....	A. J. O'Reilly, Pres. B. P. I.
Missouri.....	St. Louis.....	January 25.....	Electric-light and power plant, at Ind. School.....	A. J. O'Reilly, Pres. Bd. Pub. Im.
Florida.....	Pensacola.....	January 26, 11 A.M.....	Constructing garbage crematory at navy yard.....	Bureau Yards and Docks, Navy Department, Washington, D. C.
Massachusetts.....	Everett.....	January 28.....	Furnishing cement for city.....	W. T. Vaughan, Clk. Bd. Pub. Wks.
District of Columbia.....	Washington.....	January 29, 10:30 A.M.....	Soil pipe and fittings, steel shafting, fire clay and brick, wire rope, etc., for Isthmian Canal Com.....	D. W. Ross, Gen. Purchasing Agent.
New York.....	New York.....	January 29, noon.....	Two water-tube boilers at Incinerating Plant.....	M. Craven, Com'rs Street Cleaning.
Illinois.....	North Chicago.....	January 29.....	Building 2 pile and timber protection piers.....	Bureau of Supplies, Navy Dept., Washington, D. C.
South Carolina.....	Conway.....	January 31.....	Constructing electric-light plant.....	R. B. Scarborough, Chm. Bd. P. Wks.
Nova Scotia.....	Halifax.....	January 31, noon.....	Lighting streets and public buildings.....	W. W. Doane, City Engineer.
New York.....	Brooklyn.....	January 31, 3 P.M.....	Repairing bulkhead, Ocean Parkway.....	Moses Herrman, Pres. Pk. Comrs.
Virginia.....	Richmond.....	February 1, 5 P.M.....	Erecting bldgs., machinery, apparatus, pipes, etc., to rehabilitate and enlarge gas works; cost, \$325,000 to \$350,000.....	W. P. Knowles, Superintendent.
Arizona.....	Bisbee.....	February 4, 2 P.M.....	Preparing roadbed and subgrade, 5 miles of electric line for Warren Company.....	Cleve W. Van Dyke, Manager.
Wyoming.....	Fort Mackenzie.....	February 9, 10 A.M.....	Installing electric-light system at post.....	Lt. R. H. Kelley, Q. M.
Pennsylvania.....	Philadelphia.....	February 9, 11 A.M.....	Furnishing motor generator set for navy yard.....	Bureau Yards and Docks, Navy Dept., Washington, D. C.
Pennsylvania.....	Philadelphia.....	February 9.....	Generator set for navy-yard; estimate, \$3,750.....	Mordecai T. Endicott, Navy Dept. Washington, D. C.
Arkansas.....	Fort Smith.....	February 15.....	Constructing electric railway 4½ miles long; also electric-light and power plant, cost, \$100,000.....	Ira L. Reeves, Muskogee, I. T.
South Carolina.....	Rock Hill.....	February 15.....	Lighting city for ten yrs.; contract carries franchise to use streets for incandescent lighting and power service.....	John Boddey, Mayor.
Ontario.....	Toronto.....	February 16, noon.....	Constructing hydraulic dredge, complete.....	Emerson Coatsworth, Mayor.
Illinois.....	Chicago.....	February 20.....	Transmission lines, sanitary dist., cost \$15,000.....	Edward B. Elliott, Electrical Eng.

STREET IMPROVEMENTS

Tucson, Ariz.—Franklin and Heighon have been awarded contract for grading Second street, at \$8,627.

West Palm Beach, Fla.—The city has voted \$75,000 4 per cent. bonds for street improvements.

Cairo, Ill.—Gainer and Hayes, contractors, have received \$7,000 in bonds for the paving of several streets.

Chicago, Ill.—An ordinance has been passed requiring the Panhandle road to pave certain streets.

Decatur, Ill.—City Engineer A. B. Alexander is preparing plans for paving certain streets.

Moline, Ill.—The property owners have petitioned the Council for paving of certain streets.

Paxton, Ill.—Council has voted to issue \$30,000 in bonds to pay for improvements on city streets.

New Albany, Ind.—City Attorney John H. Waters has been instructed to prepare an ordinance for improving Market street with vitrified brick, the improvement of East Sixth street has been indefinitely postponed; the

Barber Asphalt Company has contract to lay asphalt on Culbertson avenue when sewer is completed.—Samuel T. Mann, City Engineer.

Spencer, Ia.—Plans have been prepared for constructing sewers in several streets.—B. L. Taylor, City Clerk.

Pittsburg, Kan.—Plans and estimates have been made for improving 36 blocks by paving.

Louisville, Ky.—The Board of Public Works has decided to pave a dozen streets with vitrified brick or asphalt; plans and specifications will soon be prepared and bids invited.

Lawrence, Mass.—The Essex County Commissioners are considering construction of boulevard between Lawrence and Lowell; a preliminary survey has been made by John Franklin, Civil Engineer.

Minneapolis, Minn.—Council is considering paving East Franklin avenue with creosote block on concrete, and the construction of a number of sewers.

Joplin, Mo.—Council has passed resolution to grade and macadamize Wall street, from E street to north line of North Heights addition; also North street, from Division to High streets.—C. W. Lyon, Mayor; Hiram Phillips, City Clerk.

Long Branch, N. J.—Bids for cleaning the asphalt pavements in Broadway, North and South Broadway, and Second and Third avenues for two years were opened as follows: Joseph Cohen, \$2,250; Michael Angelo Capasso, \$2,395; Rocco Dillione, \$2,350; George W. Johnson, \$2,937.50; Thomas L. Worthley, \$2,200; W. R. Hutchinson, \$2,450; J. H. Hines, \$2,500; Atlantic Coast Sanitary Company, \$2,625.

Newark, N. J.—Council has been petitioned to appropriate \$10,000 for street paving for the coming year.

Buffalo, N. Y.—Low bids for street improvements were received as follows: Main street, repaving, 4,624 square yards: With genuine Trinidad Pitch Lake asphalt, \$7,167 for paving and \$750 additional for curb; with dressed block, Medina sandstone, on concrete base, Henry P. Burgard, \$18,000 for paving and \$750 for curb; with genuine Trinidad Pitch Lake asphalt on concrete base \$10,843 for paving and \$681 for curb. Repaving Morgan street, 2,687 square yards: German Rock A. & C. Co., Ltd., with their standard asphalt, \$5,910; on macadam or concrete base, Frank V. E. Bardol, with dressed sandstone, \$9,400; with round edge fire clay brick, \$6,600; with California asphalt, on concrete base, Henry P. Burgard Company, \$7,800. Repaving Seneca street, 2,363 square yards: On macadam or concrete base, Frank V. E. Bardol, with dressed block Medina sandstone, \$8,300, and with round edge fire clay or shale brick, \$5,700; with California asphalt, Henry P. Burgard Company, \$6,250.

Akron, O.—City Engineer Payne is preparing two sets of plans for paving Broadway, from Mill to Exchange streets, one of which will provide for a row of trees in the center of the street, from Center to Exchange streets.

Cleveland, O.—Declaratory resolutions have been adopted to grade, drain, curb, pave and improve Ellen avenue, West 51st street, York avenue, West 28th street, Dover avenue, West 20th street, West 32d street, Clark avenue; ordinances have passed third reading to make similar improvements on Frazel, Dellenbaugh, Central, Lorain, Carry and Rowley avenues, East 70th and East 112th streets, and Orton court.—Peter Witt, City Clerk.

Dayton, O.—Council is considering issue of \$25,000 bonds for the purchase of asphalt repair plant.

Delaware, O.—An ordinance is before Council providing for the paving of several streets.

Elyria, O.—Property owners of Broad street and Sugar Ridge have asked Council to have these two thoroughfares paved; a brick pavement will probably be used.

Elyria, O.—Trustees of Sheffield and Elyria townships have decided to work for the paving of a main direct road between Lorain and Elyria; Lorain will be asked to adopt measures for paving Kenfield avenue at once; this town having already passed legislation for paving Lake avenue; the Trustees themselves will care for the connecting links.

Fostoria, O.—The proposition to pave High street from Main street to the Hocking Valley is to be taken up by Council at an early meeting.

Greysville, O.—Contract for paving has been let to S. H. Hibbard and C. L. Biddison.

Lima, O.—Council will pave during the coming season East North street, South Metcalf, Elizabeth and Richie avenues.

Painesville, O.—Engineer H. P. Cummings estimates the cost of paving Mentor avenue at \$17,500; brick is to be used; the question of paving State street has been referred to the City Engineer for estimates.

Steubenville, O.—The Board of Public Service will require new specifications for the paving of Washington street.

Youngstown, O.—The Council of the village of Struthers has instructed its solicitor to prepare an ordinance for issuing bonds, the proceeds to be used for laying sewer mains and constructing sidewalks.—H. Richards, Chairman, Committee on Sewers.

Youngstown, O.—The Board of Public Service has recommended paving Lane, Fifth and Florencedale avenues and West Woodland, Crossman and North Fruit streets, and for the construction of sidewalks on half a dozen streets.

California, Pa.—The Borough Trustees will soon offer \$25,000 paving and \$5,000 sewer bonds on the market.

SEWERAGE

Fayetteville, Ark.—The Board of Public Affairs will soon employ an engineer to prepare plans and make an estimate of cost of a sewerage system.

Norwalk, Conn.—A \$35,000 loan is being considered for sewer purposes.

Atlanta, Ga.—Council may appropriate \$7,000 for the construction of a trunk sewer north of Tenth street.—W. R. Joyner, Mayor.

Alton, Ill.—Contracts will be let during the year for several miles of sewers and brick paving; work to be paid for in cash or bonds; specifications have been prepared.—Edmond Beall, Mayor; T. M. Long, City Engineer.

New Albany, Ind.—The Jefferson County Construction Company, of Louisville, Ky., has been awarded contract to construct 15 and 18-inch tile sewer in Culbertson avenue, at \$1,763.84; L. T. Bradford bid \$2,064.44, and Frank Schefold, \$1,800.—Samuel T. Mann, City Engineer.

Rushville, Ind.—City Engineer A. L. Stewart has prepared plans for sewer system, estimated to cost \$35,000.

Vincennes, Ind.—The Indiana Sewerage and Drainage Company has petitioned for franchise to construct sewers.

Des Moines, Ia.—Plans are being prepared for a new sewer system for University place, to cost \$15,000.—George Dobson, City Engineer.

Detroit, Mich.—City Engineer McCormick is preparing plans and specifications to drain 18th ward; estimated cost, \$200,000.

Grand Rapids, Mich.—Estimates have been submitted to Council for constructing public sewer in Wellington place, at \$837; in East Leonard alley, \$683, and in North Forest street, \$1,220.—Samuel A. Freshney, Board of Public Works.

Houghton, Mich.—The West Houghton Board has petitioned for authority to issue \$50,000 bonds for sewer system.

Lansing, Mich.—The city will construct a system of sewer pipes; estimated cost, \$12,269.—H. A. Collar, City Engineer.

Port Huron, Mich.—The Board of Public Works will soon ask for bids to construct 300 feet of sewerage extension.—R. D. O'Keefe, Superintendent, Board of Public Works.

Duluth, Minn.—New sewers are to be constructed in Jefferson and other streets.—W. S. McCormick, City Comptroller.

St. Paul, Minn.—The Board of Public Works is considering constructing sewers in Hatch and Bradley streets.

Trenton, N. J.—Council has passed an ordinance authorizing the construction of sewers on Ferret street and Garrard avenue.—Abram Swan, City Engineer.

New York, N. Y.—North Brothers are low bidders for constructing sewer in East 179th street, at \$1,809; J. B. Malatesa was low bidder for sewer in Moshulu parkway, at \$37,504.

Akron, O.—The ordinance for the construction of a sewer on High street, between South street and Miller avenue, has been favorably reported; cost, \$6,000.

Cambridge, O.—Permission may be obtained from the State Board of Health to have the outlet of the proposed South Cambridge trunk sewer changed to a point further north; about \$5,000 could be saved by this procedure; the City Solicitor has been instructed to prepare a bond issue for \$40,000 for sidewalks, sewers, paving and other improvements.—O. M. Hoge, City Engineer.

Chillicothe, O.—Council has ordered the construction of a large number of sewers during the coming season.

Cleveland, O.—Ordinances have passed second reading in Council for constructing sewers in Ohio and West 99th streets, and Trenton avenue.—Peter Witt, City Clerk.

Delaware, O.—Council has decided to proceed with the construction of a sanitary sewer on Lake, Winter, Estell and Central avenues.

Elyria, O.—City Engineer Theobald is preparing plans and specifications for a complete system of storm water drainage for the West Side.

Pavenna, O.—Council will call for bids for constructing several miles of sewers.

Springfield, O.—Plans have been prepared for 66 short sewers, nine of which, aggregating 3,800 feet, will be 6-inch, and the remainder of 6½ miles will be 8-inch; they will be constructed as soon as possible, to facilitate the paving and other street improvements contemplated.—W. H. Sieverling, City Engineer.

Youngstown, O.—Ordinances to sewer Rose, Mercer, Cherry, Myrtle, Oakland and Pine streets have passed Council.

West Allis, Wis.—City Engineer Fred Schneider has completed plans for sewerage system, estimated to cost \$100,000.

Amherstburg, Ont.—The \$12,244.45 4½ per cent. sewer debentures have been awarded to W. C. Brent, Toronto, at 97.09 and accrued interest; other bids received were: Wood, Gundy & Co., Toronto, 97.75; Aemilius Jarvis & Co., Toronto, 96.576.

WATER SUPPLY

Birmingham, Ala.—The question of issuing bonds for municipal water plant will be submitted to a vote of the people.

Oroville, Cal.—The matter of issuing bonds to secure water system is under consideration.

Greeley, Col.—The Platte Land Company will expend \$100,000 building reservoir nine miles from this city to irrigate land lying directly south of Kersey.

Waterbury, Conn.—Bids will be received, February 18, 8 p. m., for \$15,000 4 per cent. water bonds.—William H. Sandland, City Clerk.

New London, Conn.—Legislative authority is to be asked for the issuance of \$150,000 school bonds and \$50,000 for water and sewer purposes.

Arlington, Ga.—Bids will be received, February 5, for the purchase of \$25,000 5 per cent. water and light bonds.—L. L. Lyon, Mayor.

Atlanta, Ga.—Frank F. Rice, President of the Water Board, recommends the extension of the water mains in several parts of the city.

Vidalia, Ga.—The election resulted in favor of \$14,000 water works and \$9,000 electric light bonds, to bear 5 per cent. interest and mature in 30 years.

Joliet, Ill.—Plans are being prepared to increase the amount of water supply.

Elkhart, Ind.—Messrs. Clark and Trainer, water experts, of Chicago, are seeking a franchise to construct a modern water plant.

Huntington, Ind.—The matter of issuing \$40,000 additional water bonds is under consideration.

Louisville, Ky.—Bids will be advertised for \$1,000,000 4 per cent., 40-year bonds, to provide funds for completion of the filter plant and to pay floating indebtedness.—Address Secretary of Sinking Fund Commissioners.

Milan, Mich.—The question of bonding the town for installing a waterworks system is to be voted on again the coming spring as a result of the fire which has destroyed a large section of the town.

Battle Lake, Minn.—The town has voted \$15,000 bonds for waterworks.

St. Paul, Minn.—The Water Board has authorized the Secretary to advertise for bids on cast-iron pipe, castings, fittings and supplies for the year; the Board will contract for 20,000 feet of 6-inch pipe, with the privilege of ordering 10,000 more; 10,000 feet of 12-inch pipe, with the privilege of ordering 3,000 additional, and will ask options on 1,000 feet of 8-inch and 2,000 feet of 16-inch pipe.

California, Mo.—Bailey & Waugh, Pittsburg, Kan., have been awarded contract for well 1,000 feet deep, cased with 8¼-inch casing; contracts for other portions of the work will be let in the spring.—Burns & McDonnell, Kansas City, Engineers.

Chillicothe, Mo.—The city has voted \$100,000 bonds for combined waterworks and lighting plant; plans, specifications and estimates are being prepared by Burns & McDonnell, of Kansas City.

Fargo, N. D.—W. A. Knerr has offered to furnish artesian water to the city pumping station for \$30 per million gallons for two years, provided the city takes 1,500,000 gallons daily and that right of way be provided to the pumping stations; the matter was referred by Council to the Special Water Commission.

Cleveland, O.—The representatives of the fire insurance companies recommend the extension of the high-service water mains into the outlying manufacturing district.

Lima, O.—An item of \$19,000 is included in the estimate for waterworks improvements for the coming season; \$11,000 will be expended in street lighting.

Painesville, O.—The Water Board has directed plans and specifications to be prepared for another water main from the pumping station to the city.

Toledo, O.—The Service Board has been authorized to advertise for bids for a \$20,000 improvement at the waterworks pumping station; the capacity of the plant is to be increased by 300 horsepower.

Klamath Agency, Ore.—J. H. Owens, Los Angeles, Cal., has been awarded contract to construct water and sewerage systems by the Indian Office, Washington, D. C.—Horace G. Wilson, Superintendent.

Homestead, Pa.—Bids will be received, February 4, by the Borough Clerk, for \$20,000 4 per cent. 30-year water works improvement bonds.

Steelton, Pa.—Tenders will be received, February 2, for the purchase of \$87,000 30-year waterworks debentures and \$10,000 20-year municipal building debentures, all bearing 4½ per cent. interest.—Address J. Robinson, Town Hall.

Knoxville, Tenn.—The Fire Chief recommends the enlarging of the water mains.

Nashville, Tenn.—The Board of Public Works proposes to enlarge the pumping station for the addition of a two-million-gallon pumping engine, for which the Board has awarded contracts.

LIGHTING AND ELECTRICITY

Birmingham, Ala.—The Birmingham Railway, Light and Power Company proposes to build a new power plant at once; estimated cost of improvements, \$500,000.—J. A. Emery, General Manager.

De Funiak, Fla.—Malcolm Bruce is interested in establishing an electric-light plant.

Americus, Ga.—Council has been petitioned for franchise to build new electric-light plant.

Danville, Ind.—James N. Lynch has purchased the plant of the Danville Electric Light Company; the plant will be remodeled and new machinery purchased.

Evansville, Ind.—Mayor John W. Boehne has recommended the establishment of a municipal gas and electric-light plant.

Ft. Wayne, Ind.—Owen A. Ford, Consulting Engineer, St. Louis, Mo., has been in conference with Mayor Hosey relative to a municipal electric-light plant, which the Mayor proposes to have constructed the coming season.

Newton, Ia.—City will probably expend \$15,000 in improving the municipal electric plant.

Panama, Ia.—The construction of an electric-light plant is being considered here.

Jewell City, Kan.—The citizens have voted bonds to establish a light plant.

Lagrange, Ky.—A \$10,000 electric-light plant may be established here. Charles Sauer, President Commercial Club, can probably give information.

Louisville, Ky.—The Kentucky Electric Company has purchased a site for its new plant.

Napoleonville, La.—The Board of Aldermen has fixed rates for electric lighting to be furnished town consumers as follows: Fifty cents per month for one 16-candlepower incandescent light, or 15 cents per 1,000 kilowatts when using the meter system.

Ishpeming, Mich.—The Marquette County Gas and Electric Light Company will enlarge its plant.—A. B. Finch, Manager.

Stambaugh, Mich.—Franchise has been granted to A. J. Lytle, of Norway, Mich., to establish an electric plant; the power plant will be erected at Hemlock Rapids, six miles distant; estimated cost, \$200,000.

Albert Lea, Min.—Council has under consideration the question of municipal lighting.

Winona, Minn.—The Winona Light and Power Company, which intends to develop the water power of the Black river at Hatfield, Wis., has petitioned for a 50-year franchise.

Magnolia, Miss.—The Mayor has signed a contract with the Magnolia Electric Light Company to furnish street lights for the ensuing year, by which the company is exempted from taxation.

Jasper, Mo.—Steps are being taken to establish an electric-light and ice plant; J. B. Schott is the promoter of the movement.

Buffalo, N. Y.—The Board of Public Works will advertise for bids for letting new contracts for lighting the streets.

Rome, N. Y.—The Rome Railway and Lighting Company has authorized an issue of \$500,000 4 per cent. bonds; \$200,000 will be expended for the purchase of additional equipment.

Lumberton, N. C.—Bids will be received, January 28, for the purchase of \$25,000 6 per cent. 20 to 30-year optional waterworks and electric-light bonds.—W. A. Thompson, Mayor.

Oklahoma City, Okla.—The New State Electric Company has been incorporated with a capital stock of \$30,000 by C. H. Leach, H. L. Rubholdt and others.

Lititz, Pa.—The Lititz Electric Light, Heat and Power Company has petitioned for exclusive rights to furnish light and power for a number of years.

Strassburg, Pa.—The stockholders of the Electric Light, Heat and Power Company have organized with a capital stock of \$50,000; the water power at the Wheatland mills will be utilized and lines will be run to Coryville, New Providence and Refton.

Dallas, Tex.—The International Gas Power Company, of St. Joseph, Mo., proposes to establish a plant for the manufacture of fuel gas; the headquarters of this company for Texas has been established in the Slaughter Building.

Hinton, W. Va.—The Hinton Water, Light and Supply Company proposes to purchase electrical equipment.

Lacrosse, Wis.—The plant of the Lacrosse Gas and Electric Company will be doubled in capacity.

FIRE EQUIPMENT AND SUPPLIES

Hartford, Conn.—The Board of Fire Commissioners recommend the improvement of the fire department. A new engine house is needed in the south end, to be equipped with fire engine and ladder and hook cart.

Appalachicola, Fla.—The Cypress Lumber Company is preparing to purchase hose.

Atlanta, Ga.—Council is considering resolution to appropriate \$25,000 for the purchase of a lot and the erection of an engine house in the Eighth Ward.—W. R. Joyner, Mayor.

Augusta, Ga.—Fire Chief Reynolds recommends the construction of a modern fire station to replace No. 3 engine house, and also extensive improvements in the fire alarm system.

Kansas City, Kan.—The Fire Department has petitioned for improved fire apparatus; the plan is to have at least one new fire station and two new aerial ladder trucks.

Newport, Ky.—The Underwriters' Association recommends the improving of the fire system.

Burlington, Ia.—Council proposes to build new fire station on Fifth street; estimated cost, \$30,000.

Perry, Ia.—The Fire Committee has petitioned for 500 feet of hose.

Elsie, Mich.—Bonds, \$3,000, are to be issued for better fire protection.

Grand Rapids, Mich.—The Fire Marshal recommends the purchase of an auxiliary fire alarm system.

South Omaha, Neb.—The Fire Chief has asked for a new fire cart for Fire Hall No. 1.

Albany, N. Y.—The Fire Chief has petitioned for improved fire apparatus.

Watertown, N. Y.—An issue of \$40,000 4 per cent. 30-year engine house bonds has been favorably voted.

East Liverpool, O.—Council has been petitioned for improved fire protection; it is proposed to build new fire house at Broadway and the West End; the purchase of a combination chemical engine and hose wagon and 1,000 feet of hose is recommended; six new fire alarm boxes are requested.

Toledo, O.—The purchase of four second-size steam fire engines, two city service hook and ladder trucks and the rebuilding of the aerial truck is recommended.—William Mayo, Fire Chief.

Ridley Park, Pa.—Money is being raised for the purchase of chemical engine.

Bolivar, Tenn.—A volunteer fire company has been organized.—N. F. Hezer, Chief.

Belton, Tex.—The Fire Department is now erecting new station which will be equipped with modern fire apparatus.

Ft. Worth, Tex.—The North Fort Worth Council proposes to purchase combination hook and ladder wagon and fire alarm for Central fire station.

PUBLIC BUILDINGS

Valley Joe, Cal.—Council has under consideration an issue of \$60,000 school bonds.

Boulder, Col.—A movement is on foot to issue bonds for the erection of a City Hall.

Atlanta, Ga.—The appropriation of \$75,000 for the purchase of a lot for the erection of an auditorium-armory has been recommended to Council.—W. R. Joyner, Mayor.

Maysville, Ga.—The city has voted \$3,000 6 per cent. school bonds.

Chicago, Ill.—Bids for the erection of a boathouse and pavilion in Humboldt Park were rejected by the West Park Board; the lowest was \$53,700.—State Architect Zimmerman.

Portland, Ind.—The School Board of Portland has ordered plans for a new high school building; bids are invited; estimated cost, \$35,000.

Washington, Ind.—Plans for the remodeling of the Daviess County Court House have been drawn up; bids will be asked soon; cost, \$50,000.

Bennington, I. T.—An election will be held February 2 to vote on issue of \$8,000 bonds for the construction of schoolhouse.

Newton, Ia.—An election will be held to decide the question of issuing bonds for the erection of a high school.

Kansas City, Mo.—An ordinance is before Council authorizing issue of \$60,000 bonds for the erection of a workhouse.

St. Louis, Mo.—A proposition to bond the city for \$300,000 for constructing a public market place is being considered by Council.

Geneva, N. Y.—Plans are being prepared for a new City Hall here.

New York, N. Y.—It has been recommended that three blocks on Union Square, extending from Fourteenth to Seventeenth streets and to Irving place, be secured for the erection of a new County Court House; the site, it is estimated, will cost \$8,243,500 and the building \$6,000,000 additional.

Albemarle, N. C.—Hook and Rogers, Charlotte, have completed plans for building to be erected at the Albemarle Normal and Collegiate Institute.

Nelsonville, O.—The recent election resulted in favor of \$45,000 bonds for school building.

Portsmouth, O.—The Board of Education is preparing to issue \$15,000 bonds for enlarging school houses.

Wooddale, O.—The citizens have voted \$15,000 bonds for the erection of a school house.

Seranton, Pa.—The Building Committee of the School Board has recommended the build-

ing of fifty rooms in new buildings, at \$4,500 per room, and the issue of \$300,000 bonds to cover the improvements.—Comptroller Schlager, Chairman.

Florence, S. C.—The School Board has offered for sale \$40,000 4½ per cent. 1 to 20-year school bonds.

Chattanooga, Tenn.—All plans, designs and estimates of architects relative to remodeling the Court House have been completed and submitted to the committee of which Capt. Gahagan is Chairman.

Knoxville, Tenn.—Briner and England have been awarded contract to build new Court House for Blount County, at \$39,966; the building will be two stories and basement, with bell and clock tower 100 feet high, and work will be started in May; other bidders were L. A. Galyon, J. M. Dunn & Son, David Getaz, Son & Co., Waldup & Stephenson, and Borches, Waldup & Co., the highest bid being \$48,800.—Maj. W. A. McTeer, W. B. Howard, Robert McReynolds, W. B. Townsend and John Hufstetter, Building Committee.

Carney, Tex.—Bonds, \$4,000, have been voted for the erection of school house.

Clifton Forge, Va.—The city contemplates erecting a \$30,000 school house during the year.

Norfolk, Va.—A committee has been appointed, composed of President of School Board W. M. Jones, Dr. T. L. Royster and Superintendent R. A. Dobie, to secure competitive plans for a high school building, to be centrally located.

Richmond, Va.—A. C. Bedford has contract at \$52,668 for the construction of almshouse, after revised plans by Charles K. Bryant.

Milwaukee, Wis.—The School Board has taken steps toward building an 18-room school to replace the present Tenth District No. 1 school, costing \$72,000; a 24-room school to replace the Eleventh District No. 1 school, costing \$96,000; a 10-room addition to the Thirteenth District school No. 3, and new heating plant, costing \$45,000; and a 10-room addition to the Fifteenth District school No. 2; and new heating plant, costing \$45,000; a 6-room addition to the Eleventh District school No. 2 is also planned.

West Allis, Wis.—Council has authorized issue of \$20,000 bonds, \$18,000 for a new school building and \$2,000 to finish upper floor of \$30,000 building erected last year.

Brandon, Man.—Plans are being formulated for the erection of a new Court House.

STREET RAILWAYS

Pine Bluff, Ark.—The Citizens Light and Transit Company is preparing to build an extension of the road.

Porterville, Cal.—The Sierra Pacific Railroad, which was incorporated to build a road from Globe to Porterville, has changed its name to the Eastern Sierra and Pacific; the capital has been increased from \$5,000,000 to \$50,000,000; an issue of 40-year 5 per cent. construction bonds has been authorized.—Otto E. Bashore, President.

Campbell, Fla.—The Tampa Electric Company has been granted a franchise to extend its lines.

Macon, Ga.—The Macon, Dublin and Savannah Railway Company has decided to issue \$1,800,000 bonds; a road will be built from Atlanta to Macon.

Bellevue, Ill.—The Bellevue-Pinckneyville Traction Company will build a line a distance of 47 miles; the right of way is being secured.—Haper Brothers, Sexton Building, East St. Louis, Ill., Engineers-in-Charge.

Lexington, Ky.—The stockholders of the Interurban Railway Company propose to increase their capital stock \$1,000,000; extensive improvements are to be made in the lines and power house.

Baltimore, Md.—A corps of surveyors from the Highway Division of the Maryland Geological Survey is engaged in mapping out route of proposed electric line between Baltimore and Washington, D. C.; contracts will be awarded shortly, so that work may be started in the spring.

Smithville, Mo.—John B. Woods, President of the Farmers' Bank, is interested in a project to build an electric line from Kansas City to St. Joseph, by way of Smithville.

Defiance, O.—The Northwestern Electric Railway Company will build 40-mile electric railway to Coldwater, Mich.—A. J. Crow, President.

Mansfield, O.—The Roberts and Abbott Company, of Cleveland, have surveyors in the field making a survey of the proposed line from Mansfield to Mt. Vernon and Columbus.

Martin's Ferry, O.—The Dillonvale and Ohio River Traction Company have decided to build trolley line from Rayland to Dillonvale, a distance of five miles.—W. B. Francis, Secretary.

Corsicana, Tex.—The Central Texas Traction Company has been incorporated, with a capital stock of \$50,000, by J. V. Watkins, William H. Moser, and others.

BRIDGES

Tucson, Ariz.—F. L. Lowry has been awarded contract to construct bridge over the Arroyo at Stone avenue, for \$11,604.

Little Village, Ark.—The Chicot County Board will receive bids for construction of the following bridges: One across Fish Bayou, in Alexander township, about 250 feet long; across Black Pond Bayou, in Bowie township, about 60 feet long; across Cany Bayou, in Bayou Macon township, about 200 feet long; across Big Lake, in Louisiana township, about 300 feet long; across Pap's Bayou and Bayou Macon, in Carlton township, about 150 feet long.—Harry E. Cook, County Judge.

Bridgeport, Conn.—Public Works Director Kennedy has rejected bids for strengthening and repairing Yellow Mill bridge, opened December 20, as too high, the prices ranging from \$6,815 to \$11,874, and has awarded contract to Dean, Schwiers and Sutton Company, of New York, the highest bidders to do the work from their own plans, for \$7,610.

Ardmore, I. T.—Council will offer for sale \$150,000 public improvement bonds.—R. W. Dick, Mayor.

Madisonville, Ky.—Many bridges in Hopkins county have been taken out by flood; new ones will be built.

St. Paul, Minn.—A new bridge will soon be constructed, to cost \$250,000; test borings and soundings are now being made; it will be built by the city of St. Paul and the Twin City Rapid Transit Company, of which E. H. Scofield, Minneapolis, is Chief Engineer.

Albany, Mo.—J. H. Sparks was, on January 8, awarded contract for building 23 bridges, for \$7,457.—W. A. Henton, County Surveyor.

Norwich, N. Y.—The building of a bridge at Conkey avenue is again being considered.

Lima, O.—Council has made an appropriation of \$6,500 for bridges.

North Bend, Ore.—The Southern Pacific has under consideration the matter of a bridge across the Coos Bay, at North Bend, Ore.; a petition has been filed with the War Department for permission to erect such a structure.

Centerville, Tenn.—The Quarterly Court ordered two bridges to be built across Duck river, one near Only, and the other at Little Lot, both to cost \$20,000.

Dallas, Tex.—The Gulf, Colorado and Santa Fe will erect steel and concrete bridges over Haskell avenue.

Graham, Tex.—Young county has voted to issue bridge bonds.

Yakima, Wash.—The County Commissioners have decided to build a \$20,000 bridge across the river.

Milwaukee, Wis.—The Committee on Bridges has been authorized to advertise for bids for the construction of a viaduct; estimated cost, \$400,000.

MISCELLANEOUS

Oakland, Cal.—The election resulted in favor of \$992,000 park bonds.

Bridgeport, Conn.—A committee, of which Alderman Burnes is Chairman, has been appointed to consider purchase of voting machines; information is desired from manufacturers.—M. F. Reynolds, Mayor.

Washington, D. C.—I. T. Brown, of New York, was low bidder for collecting ashes and refuse from private residences, at \$20,000, and for extending the service to hotels, apartment houses and all places of business once a week he was also low at \$71,000; other bidders were R. V. Rusk, Stutler and Ready, and John T. Conrad; the figures will be submitted to Congress to furnish an accurate estimate of the cost of the extension of ash and refuse collections.—H. B. F. Macfarland, Commissioner.

Washington, D. C.—President Roosevelt has signed bills for the widening of Bladensburg road, and for other purposes; for the extension of Seventh street and Franklin street, northeast, and for other purposes; for the widening of a section of Columbia road east of 16th street; for the extension of 23d street northwest to Kalorama road; for the extension of Second street northwest from Elm street north to Bryant street; of W street from its present terminus west of Flagler place to Second street, and of W street west of Second street eastwardly to Second street; for the extension of Meridian place, northwest; for the extension of Genesee place and Summit place, and to close certain alleys in the District of Columbia.

Atlanta, Ga.—Council Finance Committee is considering resolution for issuing \$1,000,000 bonds for improvement and extension of schools, waterworks, and sewerage systems.—W. R. Joyner, Mayor.

Kalamazoo, Mich.—A. M. Todd is planning a model village at Mentha, where he owns 2,200 acres; he wants to build eight miles of macadamized road through the town, and will ask the State Roads Commissioner to assist in this work; he also proposes to construct an electric-lighting plant and water-works system.

Marquette, Mich.—L. H. Pleins, Sanitary Engineer for Jas. P. Clow and Sons, of Chicago, has had a conference with F. J. Jenkinson, of the Water Board, relative to the construction of a suitable filtration system and treatment of sewage by septic tanks; the whole project is about to be taken up by Council.

Omaha, Neb.—Council proposes to purchase a patrol wagon.

South Omaha, Neb.—It is reported Spitzer & Co. have been awarded the \$40,000 4 per cent. park bonds at par.

Barberton, O.—Estimates are to be prepared for constructing and maintaining a garbage reduction plant.—Dr. Bert Robenbaugh, Village Health Officer.

Cincinnati, O.—The City Engineer recommends an issue of \$100,000 bonds to stop the landslides in various hillsides of the city.

Coshocton, O.—John Kissner, of West Lafayette, has the contract for building the new six-mile dam in the Walhonding river; cost, \$22,000; it is to be built of solid new concrete.

Middletown, O.—An issue of \$1,155 4 per cent., 10-year improvement bonds were sold to Oglesby and Barnitz, of Dayton, for \$6 premium.

PATENT CLAIMS

837,940.—Means for Constructing Embankments and Road-Beds. Frederick F. Lloyd, Oakland, Cal., assignor to E. B. & A. L. Stone Company, Oakland, Cal., a Corporation of California. Serial No. 319,377.

In a device of the character described, a movable frame, an annular track carried thereby, a mast supported centrally of said frame, and a plurality of guy-rods extending radially from over the top of said mast to various points of said annular track.

838,001.—Drainage-Trap for Houses. William R. Bonnell and John F. Conrad, Elizabeth, N. J., assignors of one-fourth to Rynear J. Slingermann, Elizabeth, N. J. Serial No. 293,887.

A trap of the class described, comprising a casing provided at one side and at the top thereof with a tubular inlet and at the opposite side and below the top thereof with a tubular outlet, a partition extending transversely across the casing and extending from the top thereof downwardly below the bottom of the tubular outlet, a valve hinged at the bottom portion of said partition and adapted to close the connection between the bottom of the casing and the tubular outlet, said casing being also provided in the top thereof and at the sides of the partition adjacent to the tubular inlet with a cellar-drain inlet, substantially as described.

838,052.—Vertical Filtering Apparatus. Daniel M. Pfautz, Germantown, Pa., assignor to American Water Purifying Company, Camden, N. J., a Corporation of New Jersey. Serial No. 329,659.

In a filtering apparatus, a casting forming a base, a tube containing filtering media, a second casting forming a head, and means removably connected with said tube and adapted to removably connect the same with said base and head, and said base adapted to support said tube and head in an operative position.

838,354.—Sewer-Base. Gustave Rader, Montclair, N. J. Serial No. 303,457.

In a sewer-base, the combination of the longitudinal center blocks provided with transverse grooves in their upper abutting portions, and transverse reinforcing-rods in said grooves embedded in the cement joints between the blocks.

838,390.—Water-Purifying Apparatus. Albert E. Dieterich, Washington, D. C. Serial No. 338,445.

The combination with a hollow core having a water-passage on its outer surface, of electrodes held in said water-passage, in contact with the water therein, said water-passage communicating at one end with the interior of the core and at the other end with a source of water-supply, and a mechanical filtering means within the hollow core, and a water offtake communicating with the mechanical filtering means.

838,478.—Road-Scarifier. Marquis J. Todd, Buffalo, N. Y., assignor to Buffalo Steam Roller Company, Buffalo, N. Y., a Corporation of New York. Serial No. 318,582.

A road-scarifier comprising a pivotally-mounted body having a gooseneck at each end, adjusting screw-rods extended through said goosenecks, nuts pivotally mounted in the latter with which said screw-rods engage, rollers on the lower ends of said screw-rods, and pivoted frames connecting the lower ends of said screw-rods to said body.

838,542.—Clean-Out for Soil-Pipes. John J. Phelan, Worcester, Mass. Serial No. 254,511.

A clean-out for piping, comprising the hub, having an inwardly-flaring, annular recess, larger at the inner than the outer end, also having an annular beveled rim extending into said recess around and next to the central opening of the hub, in combination with an internally-threaded ring, fitted longitudinally in the recess of the hub, just outside of said annular beveled rim, and having a series of openings through its inner end, an externally-threaded plug fitted in said internally-threaded ring, and the soft-metal seat and packing formed by pouring molten metal into the device, substantially as and for the purpose set forth.

838,688.—Fire-Extinguishing Apparatus. Samuel A. Collins, Troy, Ohio. Serial No. 294,839.

In an apparatus of the type specified, a cylinder base portion, a series of revolving fans within said base portion, a pipe or nozzle connected with said base portion and forming the outlet therefrom, a superstructure supported upon said base portion and providing an initial entrance-chamber and an intervening feed-chamber communicating with said entrance-chamber, and with the base through an air-tight valve above the fans, a slide-valve controlling said passage to the base, a bell-crank lever pivoted on the base and having a connection with said slide-valve, and a master-wheel, said master-wheel being geared to the shaft of the fan-blades, and the agitator being connected with the shaft of the master-wheel through an eccentric and strap, as herein described.

838,804.—Garbage-Receptacle and Cover. Jacob I. Orkin, Boston, Mass., assignor to Boston Garbage Can Company, Boston, Mass., a Corporation of Massachusetts. Serial No. 292,164.

A garbage-receptacle consisting of a can provided on its upper edge with an outwardly-extending bead, a hinge, a metallic cover attached by the hinge to the can and having a circumferential groove in its under side near its outer edge, a strip of rubber secured in the groove, a locking-lever attached to the can for firmly pressing the cover upon the can, a flat box secured to the under side of the cover, a perforated lid for the box, and a strip of fibrous material within the box for holding disinfectant, substantially as described.

839,069.—Road-Grader. John W. Langfitt, Adel, Iowa. Serial No. 312,362.

In a road-scraper, the combination of a front axle, supporting-wheels thereon, a scraper-bearing frame having pivotal connection with the front axle, and means for limiting the pivotal movement of the frame relative to the axle.

THE almost World-wide tendency among the municipalities to go over to the wood-block in preference to the other pavements has been brought about by its record on the London and Paris foundations. We can sell you this foundation at one-half the London and Paris prices. Over twenty-five years ago the creosote wood paving-block fell into utter disrepute in America, on account of the American foundation. The Nash Road, Borough of Brooklyn, New York City, U. S. A.

WANTED—Energetic, able young man to act as superintendent of stone quarrying and cutting business. Must be thoroughly competent to figure plans and superintend cutting shed, and able to handle 200 or 300 men effectively. Reply should give previous experience in detail. Address "Quarries," care Municipal Journal and Engineer, Flatiron Building, New York.

SUPERINTENDENTS AND FOREMEN thoroughly familiar with machine shop practice; positions at good salaries for men with record for results. Write us to-day, stating experience fully. Hapgoods, 305 Broadway, New York.

For Machines to Drill, Blast and Test Holes and Water Wells, write "LOOMIS CO., TIFFIN, O."

LEGAL NEWS

A Summary and Notes of Recent Decisions
—Rulings of Municipal Interest

Town Responsible for Treatment

Pezze vs. Sheffield.—Mrs. Pezze was bitten by a mad dog and the Selectmen sent her away for Pasteur treatment. Judge Sanford decided that the Selectmen had given Mrs. Pezze to understand that the treatment would not cost her anything, and accordingly found for the defendant and ordered the town to pay the cost.—District Court, Great Barrington, Mass.

Damage for Defective Pavement

Nolan vs. Boston.—A verdict was found for \$1,725 in favor of John Nolan against the city of Boston, for personal injuries, by a jury before Judge Bishop. He was thrown from the seat of his wagon and struck by a case of bottles and injured by the wheels going into a depression in Longwood avenue. He sued for \$4,000.—Superior Court, Boston, Mass.

Vaccination in Schools

Commonwealth ex rel. vs. Rowe.—An act to provide effectual protection of the public's health by requiring pupils in schools to submit certificates of vaccination is an exercise of the police power of the State. A teacher is not an officer and cannot expel a pupil; that power is lodged in the Board of Directors. Directors have been given the power to expel pupils guilty of refractory or incorrigibly bad conduct. Where it is the duty of the pupil to be vaccinated in order to obtain admission to the public schools, the refusal to submit to vaccination is such refractory conduct as would authorize the Board to expel.—Common Pleas, Allegheny Co., Pa.

Elevated Platform a Nuisance

Chicago Cold Storage Warehouse Company et al. vs. People ex rel. Stirling et al.—Under the general city and village act the title to all sidewalks is vested in the city for the public and they are under the control, supervision and dominion of the City Council. This control is not absolute, but must be exercised according to certain well-established rules and principles. The court is of opinion that the ordinance in this case is invalid and that the platform in question was a nuisance and such an obstruction to public travel as entitled appellees to have it removed. Upon the removal of the platform the grade of the walk should be restored to substantially that of the street.—State Supreme Court, Chicago, Ill.

Paving Injunction Dismissed

Dillingham vs. Spartansburg.—A petition for an injunction to prevent paving contracts amounting to \$100,000 from being carried out was made on the ground that bids had not been advertised for in the local papers; that Council had not let the contract to the lowest bidder; that a monopoly had been created by advertising for a patented cement used by one company. The court held that the City Council had exercised all due diligence and acted within its authority. The injunction was dismissed.—Supreme Court, Columbia, S. C.

NEWS OF THE SOCIETIES

American Society of Civil Engineers.

—The members of the Society met in a business meeting at their house, 220 West Fifty-seventh street, New York City, at 10 a. m. January 16. A lunch was served after the meeting to members of the society. In the afternoon several parties were formed and visits made to the Blackwells Island Bridge, the Pennsylvania Railway Terminal and Subway across the city, the Lackawanna Railroad's Ferry House at East Twenty-third street, New York, and the Hoboken Terminal and the Interborough Company's Power House, New York. In the evening a banquet was given at the house at which the attendance was about 800. On the 17th the Society went by a special steamer to Staten Island, where the plant of Miliken Bros., Inc., was inspected. In the evening after a supper and dance was given. The meeting was entirely for business and social purposes and no formal papers were read. The following officers were elected for the ensuing year: President, George H. Benzenberg, Milwaukee, Wis.; Vice-presidents, John A. Benzel, New York City, and John A. Ockerson, St. Louis, Mo.; Treasurer, Joseph M. Knap, New York City. Directors, Allen Hazen, New York City; George W. Tillson, Brooklyn, N. Y.; Frank W. Hodgdon, Boston, Mass.; James Christie, Philadelphia, Pa.; Horace M. Horton, Chicago, Ill.; Arthur L. Adams, San Francisco, Cal.

American Society of Inspectors of Plumbing and Sanitary Engineers.

—President Henry B. Davis, of Washington, D. C., presided at the second annual meeting of the society in Cleveland, O., January 8-10. Dr. Martin Friedrich, Health Officer of Cleveland, called attention to the plumbing code prepared for Cleveland, O., by Mr. John Eisemann and now pending before the City Council. In Mr. Davis' presidential address an account was given of a canvass made to ascertain the number of cities of 3,000 population and over having an inspector of plumbing, sewer and water connections. Out of 1,000 inquiries, 585 replies were made from which the information was obtained that 297 cities (of which 14 were Canadian) had such an officer. In a number of cities certain officials combined more general duties with that of inspection of plumbing. Some large cities made a poor showing in this respect, such as Indianapolis, Ft. Wayne, Evansville, Muncie, Ind., New Orleans, La., and Harrisburg, Pa. Harrisburg is in the third class of Pennsylvania cities, which are not required to have a plumbing code of inspector.

The officers elected were Henry B. Davis, Chief Plumbing Inspector, Washington, D. C., and Mr. Garrett W. Cotter, New York City, Secretary and Treasurer.

Western Societies of Engineers.—The annual meeting was held in Chicago, Ill., January 8. The Secretary's report showed a membership of 925. At the dinner following the business meeting Mr. Bion J. Arnold addressed the meeting, pointing out the advantages of the substitution of electricity for steam power in railroad terminals within city limits. Mr. Arnold, speaking of local conditions, said in part: "From an examination of the map of the business district, bounded by Sixteenth street, Halstead street, Chicago avenue and Lake Michigan, it will be seen that 23 per cent. of this area is occupied by the tracks of steam railway

companies. In view of the present state of electric railroading the right to vitiate the air of our congested districts by the emission of large quantities of carbonic dioxide from the stacks of numerous locomotives is as questionable as is the right to foul the air by the stenches from the stockyards. As there is now a possibility of the removal of these yards, is it unreasonable to hope that all of the steam railroad companies, through the wise foresight of their officers, may help us to purify and beautify the city by assisting the general movement now under way by our progressive civic bodies for this purpose?"

Indiana Engineering Society.—At the annual convention, held at Indianapolis, January 17-19, a number of papers were read, among which the following were of special interest: "The Design of a Successful Gasoline Engine," L. O. Danse; "A Reinforced Concrete Sewer," M. A. Morris; "Estimates for Steel Highway Bridges," B. F. Nesbit; "Interurban Railway Engineering," R. P. Woods; "Advantages of Electrical Inspection," F. R. Daniel; "The Track Elevation Plans for Indianapolis," Chas. C. Brown and B. J. T. Jeup; "Electric Car Braking," Prof. H. T. Plumb.

Calendar of Meetings

January 22-24.

American Society of Heating and Ventilating Engineers.—Annual meeting, New York City.—W. M. Mackay, Secretary, P. O. Box 1818, New York City.

January 22-24.

Ohio Engineering Society.—Annual convention, Columbus, Ohio.—E. G. Bradbury, Secretary, 85 North High street, Columbus.

January 23-25.

Illinois Society of Engineers and Surveyors.—Annual meeting, Peoria, Ill.—E. E. R. Tratman, Secretary, 1636 Monadnock Block, Chicago, Ill.

January 24.

Ohio Local Health Authorities.—First annual conference, Columbus, Ohio.

January 25.

American Institute of Electrical Engineers.—213th meeting, Auditorium, Engineers' Building, 33 West Thirty-ninth street.—Ralph W. Pope, Secretary, 95 Liberty street, New York.

January 29.

Canadian Society of Civil Engineers.—Annual meeting, Montreal.—Prof. C. H. McLeod, Secretary, 877 Dorchester street, Montreal, P. Q.

February 4-16.

National Brick Manufacturers' Association.—National convention, St. Louis, Mo.—Theo. A. Randall, Secretary, Indianapolis, Ind.

February 4-6.

American Ceramic Society.—Ninth annual meeting, Planters Hotel, St. Louis, Mo.—Edward Orton, Secretary, Columbus, Ohio.

February 5-6.

National Association of Paving Brick Manufacturers.—Meeting, Planters Hotel, St. Louis, Mo.—T. A. Randall, Secretary, Indianapolis, Ind.

February 15-16.

Wisconsin Gas Association.—Annual meeting.—Henry H. Hyde, Secretary, Racine, Wis.

February 22.

New England Association of Gas Engineers.—Annual meeting, Boston, Mass.—N. W. Gifford, Secretary, New Bedford, Mass.

February 26.

Association of Ontario Land Surveyors.—Annual meeting, Toronto.—Killaly Gambie, Secretary, 405 Temple Building, Toronto, Ont.

April 18-21.

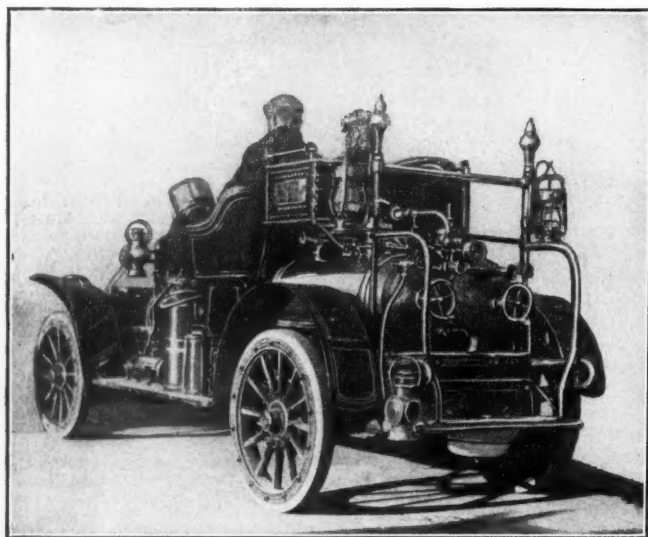
Southwestern Gas, Electric and Street Railway Association.—Annual meeting, San Antonio, Tex.—Frank C. Duffey, Secretary, Beaumont, Tex.

August 20-22.

The International Association of Municipal Electricians.—Annual convention, Jamestown Exposition, Norfolk, Va.—F. P. Foster, Secretary, Corning, N. Y.

AUTOS FOR CITY DEPARTMENTS

AUTO CHEMICAL FIRE ENGINE.—This machine, exhibited by the Combination Ladder Company, of New York, at the Seventh National Automobile Show at Madison Square Garden, New York City, January 12-19, has attracted the attention of firemen and the general public. The apparatus is a regular two-cylinder chemical fire engine, mounted over the rear truck of a Knox Model "G" chassis. The accompanying cut shows this apparatus as it was exhibited before the Central Fire Station, Providence, R. I., to the Fire Commissioners of that city. The equipment of fire apparatus is identical with that of the regular thirty-five gallon cylinder engine placed on the market by the Combination Ladder Co. In detail this consists of two extra charges of acid and soda, 200 feet of three-fourths-inch chemical fire hose, two three-gallon hand extinguishers, two extra half-inch nozzle tips, two fire axes, a crowbar, two fire department lanterns, a 9-inch swinging revolving search lamp supplied with acetylene gas from a Presto tank, a 13-inch rotary gong and boxes of wrenches and small tools. The engine is mounted on a Knox limousine chassis with Knox patent shock absorber, the specifications for which are: Wheelbase 112 inches, tread 56 inches, Diamond solid rubber 4-inch tires with chain, four $4\frac{3}{4} \times 5\frac{1}{2}$ -inch cylinders; 40 h.p.; gasoline capacity 20 gallons; ignition, jump spark, magneto and dry cells; carbureter, float feed; transmission, sliding gear, selective type; speeds, four forward, one reverse; drive, bevel gear and side chains; wheel steering; approximate weight, 3,200 pounds; speed, about 40 miles. The price of this engine is six thousand dollars; the merits claimed for it by the manufacturers are: Low cost of maintenance, one-half that of the horse-drawn chemical. The capability of extinguishing 90 per cent. of all fires, a percentage 15 per cent. greater than is claimed for the horse-drawn chemical. Speed in getting out of house (one minute). Speed in going to fire. Wide radius of action.

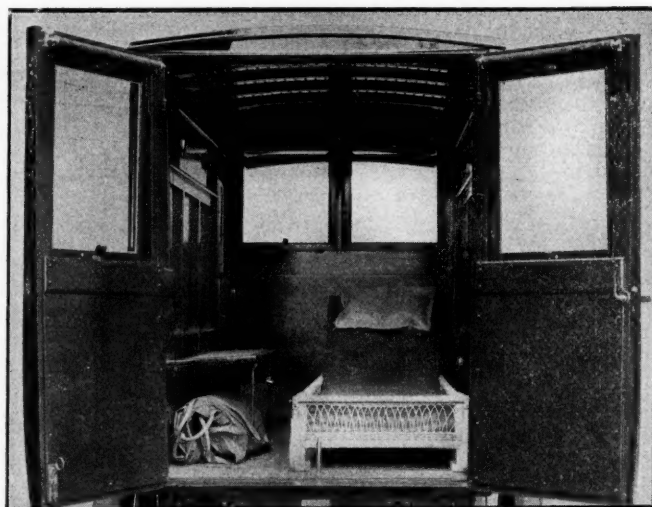


AUTOMOBILE FIRE ENGINE

AUTO PATROL AND AMBULANCE.—The General Vehicle Company, Long Island City, had an interesting exhibit of commercial vehicles at the Madison Square Exhibition. On page 360 of the MUNICIPAL JOURNAL AND ENGINEER for October 3, 1906, was an illustration and description of its patrol wagon. The catalogue of this company shows seven types of ambulances in addition to the patrol wagon, which may also be used as an ambulance. Of these the latest type is the fully-inclosed type with extra long

springs, one of which is in use at the Massachusetts General Hospital, Boston, Mass.

STUDEBAKER AUTOMOBILE AMBULANCE.—This ambulance, of which the cut shows an interior view, is run by a battery of 48 cells placed in four trays of 12 cells each. On level streets with hard surfaces this battery is claimed to be capable of carrying the ambulance, with a load, 40 miles without recharging. Its maximum speed on a level is 15 miles per hour. The gauge is 4 feet 8 inches, the wheels being 36 inches diameter. The wheelbase is 7 feet 8 inches, the extreme length 11 feet 2 inches and width 5 feet 10 inches, both over all. The inside dimensions are: Length 7 feet, width 38 to 42 inches, height 58 inches. The weight complete is 3,700 pounds.



AUTOMOBILE AMBULANCE

TRADE NOTES

AIR COMPRESSORS.—The Ingersoll-Rand Company, 11 Broadway, New York City, issues a handsomely illustrated catalogue of the Ingersoll-Sergeant Air and Gas Compressors made for all duties and pressures. The catalogue of 184 pages covers the complete line of compressors built by the company, a brief description of each of the nine classes is given, followed by tables of sizes and illustrations of typical machines and representative plants. Among these are the large plants of S. Pearson & Son, Inc., and the O'Rourke Engineering Construction Company, used in connection with the sub-aqueous tunnels approaching New York City; it is noted that sixty-six compressors supply all the air for the fourteen tunnels approaching the city. Considerable space is given to general information, the principal subjects being "Elements in Economy in Straight Line and Duplex Types of Compound Air Compressors"; "Compound Air Compression"; "Air Receivers and Pressure Tanks"; "Aftercoolers"; "Air Reheaters"; "Air Compressor Valves," and "Compressor Regulators."

ENGINES AND BOILERS.—The Atlas Engine Works, Indianapolis, Ind., issue a General Bulletin of Illustrations and Specifications of engines and boilers. The claim is made that the company manufactures the most complete line of engines and boilers in the world. The classification of engines is as follows: Single-valve Throttling, Self Contained, with ball governor or automatic; Single-valve Throttling Heavy Duty Engines, with ball governor or automatic, with out board pillow-block; Twin-coupled Throttling Heavy Duty Engines; Four-valve Automatic Self-contained; Automatic Four-valve Heavy Duty, with out board pillow-block; Four-valve Side Crank, splash oiling; Corliss Engines; Girder Frame Cor-

liss Engine; Standard Heavy Duty Frame—Tandem Compound.

ESCALATORS.—The New York and Long Island Railway Company, which will operate the so-called Belmont or Steinway tunnels, has just awarded a contract to the Otis Elevator Company, 17 Battery place, New York, for the installation of the largest escalators ever built, for the Manhattan terminal of the tunnels at Forty-second street. Trolley cars, running on short headway, will be operated in these tunnels. It is estimated that the escalators will handle as many passengers as the entire stairway equipment of the Manhattan end of the Brooklyn bridge. Most of the time the two escalators will run in opposite directions, but during the rush hours they will handle the crowds only one way.

PORTABLE FORGES.—The Buffalo Forge Company, Buffalo, N. Y., issues Catalogue No. 77, describing their 1907 leaders in the line of forges and other blacksmith tools. The Buffalo Portable Down-Draft Forge No. 660 is built of heavy cast-iron and has a terra-cotta smoke-stack. The object has been to make a machine that would be durable under the conditions to which it is subjected by contractors, hence the light sheet-iron work formerly used has been done away with. By the down draft, part of the hot air and gases that would otherwise escape up the chimney are returned by the fan, bringing about a more complete combustion and effecting an economy in fuel. The fan wheel is speeded up by four simple gears running in oil in a dust-proof case to insure ease and speed in operation. The catalogue also contains a list of drills, armor-plate punches, shears and cutters and all appliances ordinarily used by contractors in erecting structural steel.

STEAM TURBINES.—The Kerr Turbine Company, Wells-ville, N. Y., issues a bulletin describing its turbines of less than 1,000 horsepower capacity, adapted for the purpose of driving generators, centrifugal pumps, blowers and the like. The Kerr steam turbine is built on the principle of the Pelton water wheel—it is a nozzle and bucket turbine, as compared with the guide and vane type, such as the Parsons. In the line of turbo-generators the Kerr Company offers a list varying from 2 kw., 4,000 revolutions per minute, to 200 kw., 1,800 revolutions per minute. The company's 15 kw. direct current turbo-generator has a speed of 3,000 r. p. m., occupies a floor space of 2 x 8 feet, and weighs 2,000 pounds.

WATERWHEELS.—The I. P. Morris Company, Philadelphia, Pa., has just completed two of the largest turbines in the world similar in design to two already shipped to Niagara Falls, Canada. Each of these four wheels is guaranteed to give 13,000 horsepower under a head of 140 feet of water, and will revolve 250 times a minute. These wheels are said to exceed their rating by 2,000 horsepower. Water will be delivered to these wheels through a penstock 11 feet in diameter through an elbow 7 feet 6 inches in diameter. The water will have a head of 140 feet and a head of 10 feet per second. Large turbines made by this company have shown an efficiency of 87.3 per cent.

PACKING BOX FOR WHEELBARROWS.—The Bryan Manufacturing Company, Bryan, O., has patented a box for packing tubular wheelbarrows. The box is used for carrying all the smaller parts of the frame, legs, braces, bolts, etc., of wheelbarrows to their destination. The box is designed especially for exporting, and insures all parts and pieces arriving at destination without loss and at the same time. Putting the box between the handles makes its destruction almost impossible. The compact packing so reduces the cubic measurements that from \$1.20 to \$3 per dozen is saved in freight, according to the country to which the goods are shipped.

WANTED

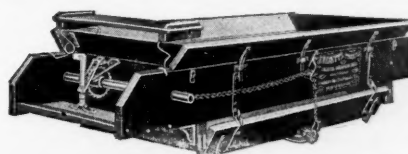
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Flatiron Building, New York

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Fits Any Gear Wagon

Is operated entirely with the foot. Endorsed by contractors everywhere. Its many good features will be explained upon application.



EVERETT MFG. COMPANY, 44 Lake St., Newark, N. Y.

WHEN YOU BUY OUR **ATKINS SPREADING WAGON** if it stands up and does its work, it is yours; if it does not, it is ours. This is the most perfect road-making wagon on the market, spreading all materials evenly and of uniform depth. It is a perfect Dump Wagon also.



Send for Catalogue giving detailed description
HENRY M. GLEN WAGON CO., 32 to 40 Oak Street,
Seneca Falls, N. Y.

MR. CONTRACTOR:

Now, before you finish reading this issue, is the time to write for information and prices on

SENDERLING PATENT DUMPING TRUCKS

Do not delay until you are busy. Investigate now and when you are busy you will have the knowledge that they are best.

WRITE TO-DAY.

The Senderling Mfg. Co.
622 WEST 47th ST., NEW YORK CITY

PERSONALS

COLEMAN, FRANCIS F., has accepted the position of publicity agent for the Lidgerwood Manufacturing Company, 96 Liberty street, New York City. Mr. Coleman combines editorial with commercial experience. His former connection with leading New York dailies as well as technical magazines has given him a lucid literary style, while his experience with the Westinghouse, Allis-Chalmers, and Taylor Engineering companies, testifies to his knowledge of mechanical affairs. He is a member of a number of technical associations.

CREEDEN, JOHN F., of New York City, has been appointed Resident Engineer of the Eastern Division, and Henry B. Brewster, of Syracuse, of the Middle Division, by F. W. Skene, State Engineer and Surveyor.

DAVIS, ALFRED, Street Commissioner of Bayonne, N. J., has been elected Chief Engineer of the Fire Department, succeeding Ernest Sherwin, who has been Acting Chief since the establishment of the paid department several months ago; Frank B. Eddy has been made City Treasurer, and John W. Empie Collector of Revenues, William C. Hamilton, City Clerk, and William J. Tomlin, Assistant City Clerk, have been re-elected.

DEAN, LUTHER, has been re-elected City Engineer of Taunton, Mass.

DUNBAR, WILLIAM M., has relinquished the office of Councilman from the First Ward, to become Mayor of Augusta, Ga., succeeding Richard E. Allen, and A. J. Twiggs, E. L. Johnson, James F. Bothwell, J. P. Saxton, and James Platt have been inaugurated as Councilmen, representing the five wards.

FARNHAM, LEVI E., has been reappointed City Engineer of Camden, N. J., and Robert Hollingsworth Chief Engineer of the Water Department.

FRASER, CECIL, for fifteen years connected with the Park Department of Louisville, Ky., during a considerable portion of which he has been Chief Engineer, has resigned owing to the abolishment of his office, and will devote his attention to landscape gardening.

FREHSEE, JULIUS, has been appointed City Engineer of Lockport, N. Y.

GERHARD, WILLIAM PAUL, the well-known consulting sanitary engineer, sailed for Europe on the *Kronprinz Wilhelm* on January 22. He will visit his old home after an absence of thirty years, and during his stay abroad will study sewage purification works, city markets, and abattoirs, public baths and city improvements. Among the cities he will visit are Bremen, Hamburg, Kiel, Berlin, Leipzig, Dresden, Nuernberg, Munich, Stuttgart, Heidelberg, Karlsruhe, Freiburg, Strassburg, Paris, London, and Amsterdam. He will return to the United States in May.

HEADEN, WILLIAM R., has been appointed Assistant City Engineer of Troy, N. Y., to succeed Frank Gredley, resigned.

HENDERSON, JOHN D., Superintendent of Streets and former mayor of Everett, Mass., died suddenly in Boston at a banquet tendered Mayor Thomas J. Boynton, and L. R. Woods, Superintendent of the Water Department, is temporarily in charge of the Street Department.

KREIGER, GEORGE W., has been named as President of the Civil Service Board of Poughkeepsie, N. Y., by Mayor John K. Sague, James A. Kerr Secretary, and Howard Platt as the third member.

LAWTON, WILLIAM H., has been re-elected City Engineer of Newport, R. I.

OWEN, KENNETH D., son of James Owen, M. Am. Soc. C. E., Surveyor of Essex County, New Jersey, has been appointed Town Surveyor of Montclair, N. J.

POTTS, J. HERBERT, has been named to succeed himself on the Board of Police Commissioners of Jersey City, N. J., and was re-elected President of the Board on reorganization.

ROBINSON, CHARLES MULFORD, of Rochester, N. Y., Austin W. Lord, Charles N. Lowrie, and H. A. MacNeil, of New York City, and Albert Kelsey, of Philadelphia, Pa., have been appointed by the City Council of Columbus, Ohio, as an expert Commission to plan for the improvement and beautifying of the Ohio Capital.

SEAMAN, J. WESLEY, has been appointed City Engineer of Long Branch, N. J.

TYLER, OWEN, President of the Board of Aldermen of Louisville, Ky., is acting Mayor during the absence of Mayor Paul C. Barth, who is spending his winter vacation in Florida.

WASMANSDOFF, O. F., City Engineer of Lewistown, Mont., has been elected County Surveyor of Fergus County, and will fill both offices.

WHITE, M. O., Chairman; William Brakebill, member of the Board of Health and Health Officer; J. P. Hackney, of Knoxville, Tenn., recently paid a visit to Atlanta, Ga., to look into the manner of disposing of garbage there, as the problem is becoming a serious one in Kentucky, all the dumping grounds within hailing distance of the city being about filled up.

YATES, MILVILLE, Deputy Water Commissioner of Colorado Springs, Col., has been elected by the City Council as Commissioner to succeed R. C. Bradfield, who has been made Deputy County Treasurer.

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and
Wire Cut

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THE UNITED BRICK COMPANY
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Four-way adjustable street signs with reinforced steel tube posts and sheet metal perforated signs

These signs are indestructible by the elements, do not rust or corrode, and can be read from a long distance and at any angle you approach them. Adjustable to the intersections, will carry as many signs as are needed for additional intersections. Write for catalogue. We contract with municipalities for signs and house numbering.

AGENTS WANTED in EVERY STATE in the UNITED STATES to REPRESENT OUR LINE. Send for Catalogue.

Perforated house numbers in any finish a specialty
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